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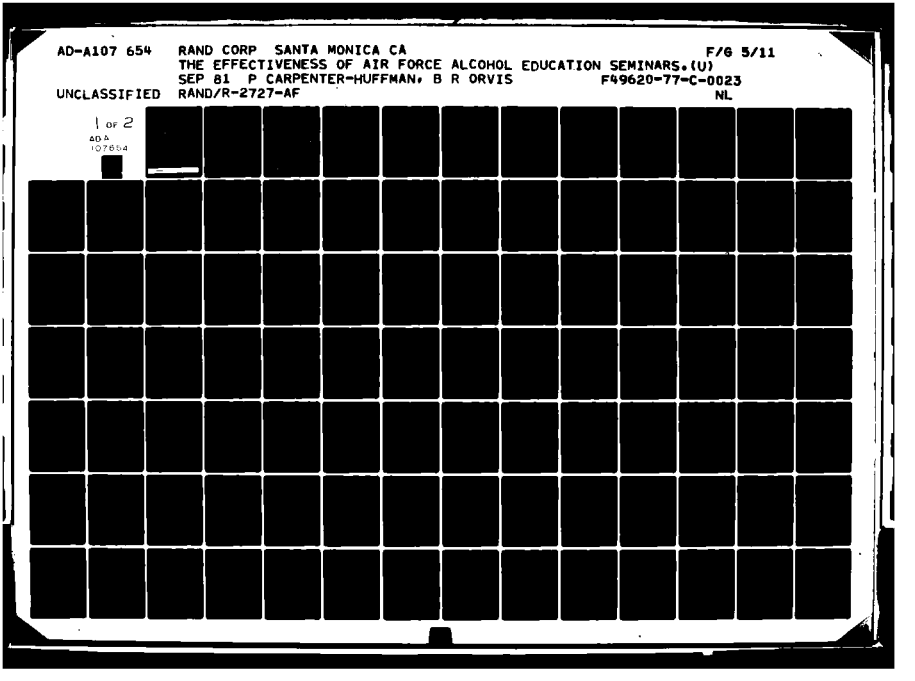

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The Effectiveness of Air Force Alcohol Education Seminars

P. Carpenter-Huffman, B. R. Orvis, D. J. Armor, G. M. Burkholz

September 1981

Rand

PROJECT AIR FORCE

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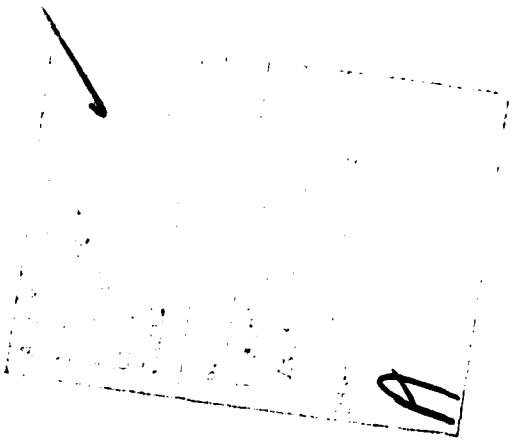
An evaluation of the Air Force Social Actions Seminar Program for educating personnel about drug and alcohol abuse. The authors analyze the objectives, cost, implementation, and effects of the program, and recommend policy changes to improve the effectiveness and efficiency of prevention efforts. Conclusions are that although the seminars have some immediate effects on several attitudinal and informational measures, they are not large and diminish with time. Recommendations are that prevention objectives for the total Air Force population be limited to information transmission and that attempts to change attitudes and behaviors be reserved for special groups, such as at-risk individuals or persons responsible for identifying personnel with alcohol problems. These measures would entail (a) strengthening substance abuse education in Basic Military Training, programs for incoming officers, and base-level orientation programs; (b) increasing the responsibility of supervisors responsible for identifying persons with alcohol problems; (c) expanding the Alcohol Awareness Seminar for persons with less serious or incipient alcohol problems. 116 pp. Refs. (DGS)



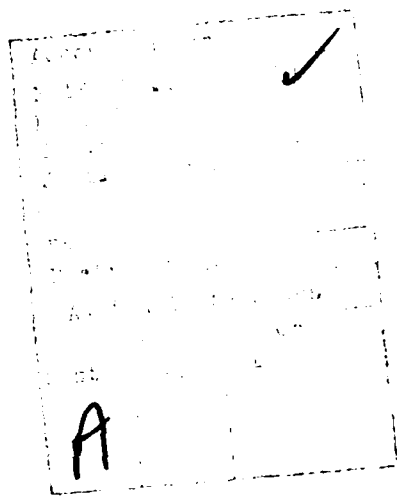
PREFACE

In 1977, the Deputy Chief of Staff for Manpower and Personnel, U.S. Air Force, asked The Rand Corporation (1) to determine the prevalence of alcohol problems among Air Force active duty personnel and (2) to assess the costs and benefits of the Alcohol Abuse Control Program, which is aimed at preventing the occurrence of alcohol problems and identifying and treating persons with them. The results are published as separate Rand reports:

- R-2308-AF, *Alcohol Problems: Patterns and Prevalence in the U.S. Air Force*, J. M. Polich and B. R. Orvis, June 1979.
- R-2813-AF, *Cost and Effectiveness of Alcohol Rehabilitation in the United States Air Force*, B. R. Orvis, D. J. Armor, C. E. Williams, A. J. Barras, and D. S. Schwarzbach (forthcoming).

The present report contains an evaluation of Air Force education seminars and other activities directed toward preventing alcohol problems.

This research was conducted under the Project AIR FORCE study "The Cost Effectiveness of the Air Force Substance Abuse Program."



SUMMARY

The fundamental objective of the Alcohol Abuse Control Program is to prevent and treat alcohol abuse and alcoholism among Air Force personnel. To meet this objective, the Air Force has a number of prevention and rehabilitation efforts aimed at various populations. The most important component of the prevention effort, in both size and cost, is the Social Actions Seminar Program for educating Air Force personnel about drug and alcohol abuse. The program provides two 4-hour seminars: an Airman Seminar for grades E-1 to E-3 and senior airmen, and a Supervisor Seminar for higher-ranked enlisted persons and officers. Everyone attends a seminar within 60 days after a permanent change of duty station (PCS), i.e., once every 3 years on average.

The purpose of this study is to evaluate the Seminar Program and recommend policy changes that might improve the effectiveness and efficiency of future prevention efforts. To accomplish this goal, we analyzed program objectives, cost, implementation, and effects.

Broadly speaking, the seminars have two main objectives related to alcohol: (1) to promote the responsible use of alcohol, and (2) to promulgate knowledge of and support for Air Force policies and programs relating to alcohol abuse.

The Airman Seminar is directed toward reducing the incidence of serious alcohol problems by decreasing irresponsible alcohol use, such as frequent intoxication or driving a car after heavy drinking. It also is intended to encourage persons who experience problems to seek help from treatment agencies. The seminar attempts to accomplish these objectives, in part, by deglamorizing excessive drinking practices and reducing the stigma associated with participation in alcohol treatment programs. It also attempts to increase knowledge about the harmful effects of excessive drinking and about Air Force policies dealing with alcohol abuse.

The Supervisor Seminar has a somewhat different thrust. Although the goals for the Airman Seminar apply to some extent, more emphasis is placed on the role played by supervisors in the identification process. In fact, the aim of the seminar is to assist in the identification of subordinates who have drinking problems by providing detailed information about procedures for identifying and referring such persons to the Air Force treatment program and about the treatment program itself.

The total Alcohol Abuse Control Program cost about $6.5 million in FY 1977; most of this represents pay and allowances for Social Actions and medical personnel. The Seminar Program accounted for about one-sixth of Social Actions direct pay and allowances (exclusive of administration and overhead) or about $660,000. In addition, attendees' time spent in the seminars was worth about $4.4 million. Although these costs represent only a small fraction of the total Air Force budget of $32 billion, the Seminar Program does represent a significant fraction of the limited resources available for alcohol abuse control. Therefore, the most important cost issue is not the absolute level of expenditures for alcohol education, but whether they represent the most effective use of available resources.

During visits to the study bases we found variation in seminar implementation. Seminars at some bases stressed drug abuse more than alcohol problems, particularly in the Airman Seminar. Within the alcohol segment, a few seminars emphasized the harmful effects of excessive alcohol use, but most spent relatively little time on this issue. We also found that since the Supervisor Seminars were targeted according to rank rather than actual supervisory responsibilities, most of the attendees were not supervising others at the time of the seminar.

We evaluated seminar effectiveness by means of a controlled field study conducted at 13 bases representing the 8 largest CONUS and overseas commands. At each base we randomly assigned persons to groups who did and did not attend the seminars and surveyed these persons immediately after the seminar and 6 months later. No significant seminar effects were found in alcohol-related behaviors, as assessed by numerous measures, including rates of excessive drinking, alcohol dependence symptoms, and work impairment. Similarly, no effects were found on referrals of persons with alcohol problems, either by self-identification or by supervisors' actions.

The seminars did have some immediate effects on several attitudinal and informational measures; however, in almost all cases these effects were not large, and they did not persist over time. Even so, most of the persons in our sample expressed attitudes consistent with Air Force policy on alcohol abuse. Knowledge levels were also quite high, with 80- or 90-percent correct answers on most items.

We believe that the most reasonable explanation for the apparent lack of seminar effects is that the current Seminar Program is not the most effective approach for preventing alcohol abuse. We base this conclusion not only on the survey results, but also on other prevention research and general concepts of prevention strategies. This work suggests that a brief educational intervention can affect knowledge, but probably not attitudes and behavior. An education program designed to change behavior might require a far more intensive intervention than can be justified for a program directed to the entire Air Force population.

We believe, therefore, that an improved strategy would effect a more realistic linkage between prevention objectives and given target populations. Specifically, prevention objectives for the total Air Force population would be limited to information transmission, whereas attempts to change attitudes and behaviors would be reserved for special groups, such as the at-risk population or persons responsible for identification. Thus, we recommend the following:

- Replacement of the substance abuse seminars with strengthened substance abuse education in Basic Military Training (BMT), Professional Military Education (PME), programs for incoming officers, and base-level orientation programs. These sessions would also emphasize Air Force programs and policies regarding substance abuse.
- Strengthening the responsibility of supervisors and medical personnel for identifying those persons with alcohol problems and referring them for education or treatment rehabilitation.
- Expansion of the Alcohol Awareness Seminar for persons with less serious or incipient alcohol problems.
- Consideration of other steps to reduce the frequency of driving under the influence of alcohol and of other forms of alcohol misuse.

Finally, in conjunction with the above steps, it is important that the Air Force continue to emphasize program evaluation; only through evaluation can we discover what works and what does not work. Such knowledge is central in the step-by-step process of developing a truly effective program.

ACKNOWLEDGMENTS

This study would have been impossible without the assistance of many persons. In particular, continuing interest and support came from General B. L. Davis, then Deputy Chief of Staff for Manpower and Personnel, and from his staff, then in the Social Actions Directorate, Colonel William King and Major John Killeen. We extend special appreciation to the Commanders of Social Actions units at the 13 sample bases and to their staffs, whose assistance was essential to our study.

We are indebted to Howard Blane and Rand colleague David Kanouse for their comments on and contributions to this report. We also gratefully acknowledge the support and advice of Michael Rich, Bernard Rostker, and Robert Roll.

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Chapter 1

INTRODUCTION

ORIGIN OF THE STUDY

Alcohol abuse creates serious public health problems in the United States, even though most persons who use alcohol do so without damage to themselves or others. A study for the U.S. National Institute on Alcohol Abuse and Alcoholism estimated the total national cost of alcohol problems at $31 billion in 1971. Virtually all of this cost was associated with lost production, health care, and motor vehicle accidents, rather than with treatment.[1]

Recognizing that any problem so prevalent in the general population is also likely to affect the military services, the U.S. General Accounting Office (GAO) suggested that alcohol abuse in the military may be a more serious problem than drug abuse. The GAO also suggested that control of alcohol problems warranted more intensive efforts than the services were then expending.[2]

Polich and Orvis, in a companion study, found that the alcohol problem rates experienced by Air Force personnel are similar to those experienced by comparable civilian populations. Over a year's time, about 14 percent of Air Force personnel have serious problems related to their use of alcohol; about a third of these, or 5 percent, report levels of dependence symptoms suggesting physical addiction.[3]

The Air Force has been concerned about the possible effects of alcohol abuse on its personnel and mission for a number of years. In 1973, the Air Force embarked on special programs to reduce the effects of alcohol abuse. Chapter 5 of Air Force Regulation 30-2, *Social Actions*,[4] describes the Air Force Alcohol Abuse Control Program, carried out largely by base-level Social Actions units. The main components of the program are activities intended to prevent alcohol abuse ("prevention") and activities to identify and treat those who have drinking problems. Prevention includes rules and regulations, media campaigns, informal education, and formal education programs. The main responsibility for identification lies with supervisors, military police, and medical staff; prevention programs directed toward such persons stress this responsibility, as well as the responsibility of not abusing alcohol. The treatment category includes both the inpatient program administered by the Air Force Surgeon General and local rehabilitation (outpatient) services provided by base-level Social Actions units.

The aim of the overall Rand study of the Alcohol Abuse Control Program is to assess (1) the effectiveness of the program and (2) its cost in relation to its current and potential benefit. The second objective raises the question of whether scarce resources are being allocated efficiently among various program components, all of which have the ultimate aim of reducing the effect of alcohol abuse on the Air Force mission. The present report deals with the costs and benefits of the prevention component.

The most extensive Air Force prevention efforts are instruction given to new recruits during Basic Military Training (BMT) and seminars given in Social Actions units at base level

[1]Berry and Boland, 1977.
[2]General Accounting Office, 1976.
[3]Polich and Orvis, 1979. Hereafter we refer to this as the Prevalence Study.
[4]Department of the Air Force, 1974.

to persons newly assigned to the base. We focused our evaluation on the Social Actions Seminar Program for several reasons. First, of all prevention efforts, the seminars reach by far the largest number of people in the Air Force and have potentially the most extensive effects. They also consume the most resources; as shown in Chapter 3, they account for nearly 70 percent of all prevention costs when the value of attendee time spent in the seminars is included. Moreover, changes in the seminars can have direct effects on Air Force personnel resources, since attendance at Social Actions programs is included in the time allowed for activities not directly related to performance of duty.

In contrast, the BMT program, the next most costly, reaches fewer than half as many people. Moreover, BMT resources are also somewhat less amenable to policy changes, since the length of BMT is fixed by law. Finally, it is essential that all new airmen be exposed to Air Force policies regarding alcohol abuse; BMT is a convenient time to ensure that this need is fulfilled.

Finally, although other Air Force prevention efforts may be worthwhile, they are so diverse and diffuse that a rigorous evaluation of their effects would be exceedingly difficult and well beyond the resources at our disposal.

STUDY OBJECTIVES

The long-run objective of the Alcohol Abuse Control Program is to "prevent alcohol abuse and alcoholism among persons for whom it [the Air Force] is responsible."[4] Thus, the primary objective of this study is to assess the effectiveness of the Social Actions Seminar Program in preventing alcohol misuse. A reduction in alcohol misuse could be translated into reductions in both the human and dollar costs of abuse, although it is essential to recognize that much of the human suffering arising from alcohol abuse cannot be expressed in terms of dollars.

The second objective of the study is to determine how the seminars operate in the field. Such knowledge is essential not only to identify the probable sources of observed strengths and weaknesses of the program,[5] but also to determine the extent to which the program actually carries out the intentions of the sponsor.[6]

The third objective is to establish the cost of prevention and to compare it with the cost of other components of the overall Alcohol Abuse Control Program. This information will help the Air Force determine whether the expenditure of resources on prevention is commensurate with its effectiveness and whether these expenditures are as productive as similar expenditures on identification and treatment of persons with alcohol-related problems.

Since the ultimate objective of this study is to help the Air Force determine the most desirable policy for future prevention efforts, we also reviewed different approaches to and philosophies of prevention, as well as the findings of previous research on the effectiveness of prevention.

EVIDENCE OF THE EFFECTIVENESS OF PREVENTION

There is a large body of literature urging the adoption of efforts to prevent alcohol abuse. Such efforts fall into several categories: limiting or prohibiting access to alcohol, persuasion

[4]Department of the Air Force, 1974, p. 5-1.
[5]Cronbach, 1973.
[6]Berman and McLaughlin, 1975.

via mass media, education in formal settings, and programs that combine prevention with treatment. Unfortunately, there have been few rigorous evaluations of prevention programs of any sort. It is clearly difficult to evaluate access-limiting or mass-persuasion approaches using rigorous methodology, i.e., randomized assignment of persons to experimental and control groups.[8] Even in the area of formal education, which is more amenable to controlled study, Cooper and Sobell could find only one evaluation (Williams et al.) that used scientifically sound procedures.[9] Two other studies, one by Engs and one by Manske and Schlegel,[10] supply additional insights, even though they have methodological limitations.

Given the paucity of rigorous research on alcohol abuse prevention, we also reviewed the literature on drug education for evidence of effective approaches. Here again we found that systematic evaluations have been generally lacking. What findings are available do not support the conclusion that drug education is effective in preventing drug abuse.

The three alcohol studies noted above provide useful background for the remainder of this discussion. Each involved prevention programs that use formal education to inhibit alcohol abuse and increase knowledge about alcohol; two were also aimed at inhibiting attitudes favorable to alcohol abuse. One program (Manske and Schlegel) was designed for eighth graders; one (Williams et al.), for eleventh graders; and one (Engs), for college students. The length of the program for eighth graders is not specified in the research report; the eleventh graders received about 5 hours ("class periods") of instruction; the college students, about 2 hours of instruction and discussion. Each of these programs involved a relatively small number of classes that received especially prepared, controlled instruction on alcohol.

The evaluations of program effects on participants' alcohol knowledge were closely tailored to program content. In all three studies, the educational program significantly increased such knowledge. Furthermore, these increases persisted over the follow-up periods of 6 months (Manske and Schlegel, p. 4), 1 year (Williams et al., p. 699), and 3 months (Engs, pp. 42 and 43).

No longer-term effects on attitudes were demonstrated. Manske and Schlegel found little effect on attitudes or normative beliefs;[11] Williams et al. found a few immediate effects on attitudes that had disappeared by the 1-year follow-up.[12] Engs did not assess attitudinal variables.

Program effects on drinking behavior were more diverse but generally not encouraging. Engs found no effects on the drinking behaviors of college students (p. 42). Although Williams found one behavioral change, the overall pattern of results was complex and carried no clear implications about effectiveness (p. 701). Manske and Schlegel's findings for eighth graders were somewhat more positive. At the 6-month follow-up, one experimental group reported a significant decrease in average daily alcohol consumption as compared with that of the control subjects.

One possible explanation for the differences in effects on behavior is that it is more difficult to alter alcohol use among older populations, whose behavior has passed the formative stage. For this reason, the Engs and Williams studies probably are more relevant to the Air Force; Manske and Schlegel's findings for eighth graders, most of whom are probably not regular drinkers, do not seem particularly relevant to the Air Force population.

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[8]Blane, 1974.
[9]Cooper and Sobell, 1979, p. 56.
[10]Engs, 1977; Manske and Schlegel, 1978.
[11]Manske and Schlegel, p. 7.
[12]Williams et al., p. 701.

Methodological Considerations

Since the ultimate objective of prevention is to reduce alcohol abuse, program evaluation should include measures of effects on participants' drinking behaviors. The three studies cited assessed such changes. Most other evaluations, however, have not measured effects in this key area; rather they have assessed participants' reactions to the program or, at best, effects on knowledge about alcohol and attitudes toward drinking. Of course, effects on knowledge and attitudes are important in themselves, and should be assessed together with behavioral change.

Once the target population has been identified, a representative sample should be drawn and experimental and control groups should be formed by random assignment. Engs' study has a fundamental problem in this regard, since participants were volunteers (self-selected) and therefore might not have been representative of the general college population in important ways. Since Engs did not address this issue, we do not know how it may have affected her results. Similarly, Manske and Schlegel have some difficulty because they simply used two existing classes for the control group. In fact, Manske and Schlegel found significant pre-test differences between the control and experimental groups[13] and, therefore, based their conclusions on analysis of difference scores. Whether this procedure was adequate is subject to dispute, since it assumes that the change scores are unaffected by other variables that were not controlled. Finally, since Williams did not identify individual participants, the follow-up control group included new students who entered school during the study period. This may have disturbed the initial comparability of the experimental and control groups.[14]

An intended behavioral change may not manifest itself within a short time span, but may be the result of an accumulation of influences in which the prevention program plays an important role. In addition, a longer time span is needed to determine whether any immediate effects on knowledge or attitudes persist over the longer run. For these reasons, enough time should be allowed between the end of the program and final assessment. The 3-month period in Engs' study, for example, is probably inadequate to assess such effects.

Prevention studies must also grapple with measurement problems such as the reliability and validity of self-reports on which they typically rely. There are additional measurement difficulties that further complicate the task. For example, it is hard to know, from program content alone, which attitudes to evaluate, since much may depend on how the program is presented and in what setting. Since it is impossible to assess all potential effects, important changes in attitude may be missed by a given set of measures. Moreover, it is difficult to determine which attitudes are associated with undesirable behavior. Is it good or bad for a program to increase tolerance of moderate alcohol use (a short-term effect found in the Williams study)?

Paper-and-pencil measures of *knowledge*, particularly factual knowledge, are more widely accepted as valid. Where the content of instruction is well defined and controlled, measures of participants' knowledge can be tightly linked to content and can be designed to discriminate among different instructional strategies. Even so, as with attitudes, the association between knowledge about alcohol and drinking behavior is not clear.

Implications for the Present Study

In designing this study, we attempted to resolve as many methodological problems as possible. Measures in all three areas—behavior, attitudes, and knowledge—were used. The

[13] Manske and Schlegel, p. 4.
[14] Cooper and Sobell, p. 56.

behavioral measures were drawn from the Prevalence Study, in which their validity was demonstrated.[15] The knowledge and attitude measures were based on Air Force materials prepared for the prevention program. We assessed a representative sample of Air Force persons, randomly assigned to experimental and control groups. Finally, we evaluated effects immediately after the prevention effort and 6 to 7 months later. Although the complexity of the research task raises the possibility that we did not solve all methodological problems, we believe that we have taken the steps required for drawing sound conclusions.

Assuming that the methodological problems in the studies cited above do not seriously jeopardize their validity, formal education programs do not appear to offer much promise for preventing alcohol abuse. Although such programs can be effective in improving participants' knowledge about alcohol, effects on attitudes toward drinking are less clear. Finally, it has not been demonstrated that such programs can inhibit abusive behavior itself, at least in the populations comparable to the Air Force population.

ORGANIZATION OF THE REPORT

The next chapter reviews Air Force prevention programs. Chapter 3 describes our cost analysis of these programs. Our field experience concerning the operation of the Social Actions Seminar Program is described in Chapter 4, and the procedures and results of our evaluation follow in Chapter 5. Chapter 6 summarizes and interprets the findings. Chapter 7 discusses general issues in prevention and presents recommendations. The questionnaire used to gather the evaluation data is given in Appendix A, and other supporting materials appear in Appendixes B, C, and D.

[15]Polich and Orvis, 1979.

Chapter 2

THE AIR FORCE PREVENTION PROGRAM

The Air Force has a rich diversity of approaches for preventing alcohol abuse. Social Actions units are responsible for most of the Alcohol Abuse Control Program, although other units can be involved either occasionally or routinely. The discussion to follow deals mainly with the Social Actions Seminar Program. Since the major objective of these seminars is to support the Alcohol Abuse Control Program, we begin by describing it briefly.

OVERVIEW OF THE ALCOHOL ABUSE PREVENTION PROGRAM

Air Force policies regarding persons with alcohol problems set the stage for all prevention efforts and, in themselves, may have deterrent effects. The Air Force position on alcohol abuse is as follows:

> The Air Force recognizes that alcoholism is preventable and treatable. It is Air Force policy to prevent alcohol abuse and alcoholism among people for whom it is responsible; to attempt to restore to effective functioning persons with problems attributable to the abuse of alcohol; to insure humane management and administrative disposition of those who cannot be restored or who do not remain restored. Air Force policies on standards of behavior, performance, and discipline are affirmed and must be maintained. These standards apply, however, to each person's conduct, rather than to his use of alcohol.[1]

People who have been formally diagnosed as having alcohol problems enter a rehabilitation program offered either by the Social Actions unit at their base or by one of the ten Alcohol Treatment Centers (ATCs) at Air Force hospitals.

For the rest of the Air Force, a number of prevention programs are offered. In 1976, the Air Force undertook a program to deglamorize alcohol. This program includes restrictions on the number of hours during which reduced-price drinks may be sold ("happy hours"), prohibitions against practices such as pro-rata bars that put pressure on nondrinkers to share in the cost of drinks, prohibitions against advertisements that glamorize alcoholic beverages, and similar measures. Although Social Actions persons actively promote this program, other people, such as unit commanders and club managers, are also involved.

Social Actions and Alcohol Treatment Center staffs prepare articles on alcohol abuse and treatment for local newspapers, put up posters, distribute pamphlets, and speak on radio or television. They also provide drop-in counseling services, operate crisis-counseling hot-lines, and conduct informal rap sessions for concerned individuals. They actively encourage interchanges with local civilian groups, such as Y-Teens or Alcoholics Anonymous, and travel off base to address such groups. Social Actions persons may be called upon to present brief talks on controlling alcohol abuse at commanders' calls and at newcomers' orientations and to

[1]Department of the Air Force, 1974, p. 5-1.

conduct the alcohol abuse control portion of Professional Military Education, such as the NCO leadership course.

The prevention efforts that consume the most Air Force resources are those regularly provided to large numbers of people. These are the formal education programs given to nearly all persons entering the Air Force and when they pass certain milestones in their Air Force careers. As noted, the Social Actions Seminars reach the largest audience; they are described shortly.

The second largest number are reached by a 4-hour session on drug and alcohol abuse given during Basic Military Training (BMT). This is the first exposure of most service members to Air Force policies and programs for the control of drug and alcohol abuse. It also affords an opportunity to impart general knowledge about alcohol and drugs to those who have not received such information before entering the service. Few of the regular BMT instructors who present these lessons have been trained in the Drug/Alcohol field.

For officers, initial exposure depends on whether they enter via the Air Force Academy, the Officer Training School at Lackland, or one of the ROTC detachments at 145 different colleges and universities. The supplier determines the content and conduct of these exposures. Even though the instructors usually have not been trained in the Drug/Alcohol field, these exposures could be important sources of information for people new to the Air Force.

In addition, at least 4 hours of instruction on drug and alcohol abuse control are included in Professional Military Education courses at the Air University (Senior NCO Academy, Squadron Officers' School, Air Command and Staff College, and Air War College) and as part of the NCO Academy or Leadership courses conducted by the major commands.

SOCIAL ACTIONS SEMINARS

The Social Actions Seminars are conducted in accordance with Air Force Regulation 30-2 and the March 1976 directive from DCS Personnel Plans.[2] Attendance and other administrative reports are channeled through Social Actions units at command headquarters to Headquarters U.S. Air Force, Directorate of Personnel Plans.

The seminars are given wherever a Social Actions unit has been established, except at administrative units at higher headquarters. As of February 1978, there were 128 base-level units (shown in Appendix B). People newly assigned to bases hosting such units are required to attend a seminar within 60 days of their arrival.

Each Social Actions unit is directed to provide two types of seminars. One is for Senior Airmen and other enlisted personnel with grades less than E-4 (sergeant); the other is for all other active duty personnel, sometimes including civilians.[3] The seminar for lower-ranking persons is called the "Substance Abuse Seminar"; the other seminar is the "Drug Alcohol Awareness Seminar for Commanders Supervisors First Sergeants." We shall use the terms "Airman Seminar" and "Supervisor Seminar" for brevity

Social Actions staff with a Drug Alcohol duty Air Force Specialty Code—7364B for officers or 734X0B for enlisted personnel—conduct the seminars. People new to the career field are trained on the job. This training includes learning regulations and observing classroom and counseling sessions; as training progresses, the trainee may help teach the seminar or may teach it with an observer present. At Lackland Air Force Base, Air Training Command provides

[2]Directive from Lieutenant General B. L. Davis, Headquarters U.S. Air Force, March 31, 1976.
[3]It is now mandatory that supervisors of Air Force civilian employees attend.

a 9-week[4] Drug/Alcohol Abuse Control Course for people working in the Drug/Alcohol field. Although this course is required for the career field, volunteers or Air Force personnel being evaluated for entry into the career field may work in the Drug/Alcohol Section of a Social Actions unit under the supervision of a school graduate.

The Military and Human Resources Training Division, under the Deputy Chief of Staff for Technical Training at Headquarters Air Training Command, prepares materials for each seminar; these include an explanation of the general purpose of the seminar, guidelines for instructors in conducting the seminar, a lesson plan, a checklist for attendee critique of the seminar, and reference materials. The seminar packages are intended to provide a standardized base that instructors augment to meet local needs.

The Program Analysis Branch in the Department of Social Actions at Lackland Air Force Base conducts research in support of the program.

Airman Seminar

The Airman Seminar deals with several categories of potentially harmful substances—illegal drugs, prescription drugs, over-the-counter drugs, tobacco, and alcohol. For each category, the seminar is supposed to stress Air Force policies, local conditions, sociopharmacology, and individual responsibility for substance use. The objectives given below are taken from the booklets provided to guide instructors.

STATED OBJECTIVES FOR AIRMAN SEMINAR[5]

1. To explain Air Force substance abuse control policies as they relate to Air Force members in the areas of accepted standards, restrictions, consequences, and individual responsibilities.
2. To describe how local conditions regarding the use, possession, transfer or sale of substances relate to Air Force members in the areas of civil law, consequences, problem areas, helping agencies and alternatives to substance abuse.
3. To describe the major pharmacologic effects of the illegal substances (i.e., drugs) and their status in society.
4. To explain the primary therapeutic uses of prescription substances and their status in society.
5. To describe the general effects of over-the-counter substances and their status in society.
6. To develop an understanding of the three elements that comprise the process for developing responsible substance use (that is, to identify the decisions that are possible, identify the factors to consider, and identify the possible results).

Following the statement of objectives, the booklet lists the main points to be covered under each. Next, a set of hypothetical situations is presented to "offer participants the opportunity to evaluate someone . . . making a decision about substance use."[6] Several of the situations deal with alcohol.

The Instructor Supplement includes factual information on Air Force policies about sub-

[4]The course is now 8 weeks long.
[5]Department of the Air Force, 1976, pp. 11-12, 23-24.
[6]Department of the Air Force, 1976, p. 25.

stance abuse, examples of local conditions to be discussed, the sociopharmacology of the various substances, and descriptions of the steps in responsible decisionmaking. Facts about the effects of alcohol occupy only twelve lines.

With regard to alcohol, instructors are expected to transmit:

- Knowledge of Air Force policies regarding people with alcohol problems.
- An understanding of how to make responsible decisions about using alcohol.

Air Force policies about people with alcohol problems are complex and may be difficult to communicate clearly. For example, while undergoing initial rehabilitation, a person diagnosed as "alcoholic" may not be on flying status; after 60 days in follow-on support, a waiver may be granted to permit the person to return to flying status. Less-impaired individuals ("problem drinkers") are *not* normally removed from flying status, however, although they may be temporarily grounded upon entry into local rehabilitation. Also, persons diagnosed as alcoholic may not work in a high risk assignment (e.g., working with nuclear weapons or with classified information) while in treatment, but problem drinkers may do so after they enter follow-on support. Promotion and reenlistment may be denied a person undergoing rehabilitation if he or she is guilty of misconduct or exhibits substandard performance.[7] For those denied reenlistment, the reenlistment period may be extended to allow reenlistment upon successful completion of rehabilitation.

The seminar booklet implies that a person who uses alcohol responsibly

- "Knows his or her limits" (i.e., does not become drunk).
- Considers the situation in deciding how much to drink (e.g., Will he or she have to drive shortly? Is the next day a duty day?).
- Does not base choices of entertainment or eating establishments primarily on the availability of alcohol.
- Does not choose friends on the basis of whether or not they drink.
- Reports those with alcohol problems to others who can help.
- And seeks help if his or her own drinking becomes a problem.

Supervisor Seminar

Although the two seminars overlap in content, they differ in their major thrust. As shown below, the Supervisor Seminar stresses the supervisor's role in prevention and treatment of drug and alcohol abuse.

STATED OBJECTIVES FOR SUPERVISOR SEMINAR[8]

1. To describe the legal differences between the use of drugs and alcohol and how these differences have affected social acceptance and accessibility differently.
2. To discuss the different types of drug users and of alcohol abuse.
3. To transmit Air Force policy for retention or separation of persons using drugs or having alcohol problems.
4. To describe the stages of Air Force rehabilitation of drug and alcohol abusers in terms of persons and procedures involved.

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[7]Department of the Air Force, 1974, pp. 5-5 through 5-7.
[8]Adapted from: Department of the Air Force, December 1975, pp. 17-33.

5. To set forth the areas other than rehabilitation in which commanders, first sergeants, and supervisors share responsibilities with Social Actions persons in the Drug/Alcohol Abuse Control Program.
6. To transmit commanders', first sergeants', and supervisors' responsibilities involving a suspected alcohol problem.

The seminar booklet details the points to be covered under each objective and explains the techniques that supervisors are expected to use in dealing with abusers. The booklet suggests guided discussion or role-playing as methods for teaching these techniques.

With regard to alcohol, the Supervisor Seminar is supposed to transmit:

- Air Force policy regarding people with alcohol problems.
- Information about the Air Force program for treating such persons.
- The role of the supervisor in the identification and treatment processes.

The seminar is to inform attendees that supervisors are responsible for ensuring that subordinates receive needed information on Air Force policies and programs on alcohol abuse (through such activities as commanders' calls), for supporting the deglamorization program, and for monitoring their subordinates' behavior and duty performance, including domestic incidents possibly attributable to alcohol abuse. If behavior or performance is unacceptable, supervisors are to prepare a written record of below-standard incidents for confronting the subordinate during counseling sessions. Ultimately, it is the supervisors' responsibility to ensure that subordinates with alcohol problems either improve on their own or obtain treatment.

Commanders are responsible for formally initiating subordinates' entry into rehabilitation and initiating appropriate administrative actions. Thus, supervisors must involve their commanders in the rehabilitation process. Both are required to attend rehabilitation committee meetings and to provide a supportive atmosphere to the rehabilitee.

CATEGORIES OF SEMINAR OBJECTIVES

The seminar objectives set forth in the seminar materials formed the basis of our evaluation. These objectives may be classified into two broad categories: (1) to promote responsible use of alcohol, and (2) to generate knowledge of and support for Air Force policies and programs concerning alcohol abuse.

While much of the seminar materials deal with informational objectives, it is clear that attitudinal and, especially, behavioral changes are sought as well. Therefore, we further distinguished the objectives according to whether they concern the behavior, attitudes, or knowledge of attendees. The major objectives in each of these areas are summarized below, with supporting rationale where appropriate.

Behavioral Objectives

The ultimate goal of the seminar program is to prevent alcohol abuse. In the responsible-use category, the major objective is to prevent excessive alcohol use and associated problems. In the policy category, the primary purpose is to increase participation in the treatment program by persons needing help, either through increased self-referral or increased supervisor referral.

Attitudinal Objectives

Although the ultimate seminar goal is to promote the behaviors just described, the ability of the seminars to do so in the short run may be limited. Patterns of alcohol-related behavior that have developed over a period of years are likely to be highly resistant to change, and a 4-hour seminar may be an insufficient stimulus to cause immediate modification. It is possible, however, that desired changes in behavior could eventually result from initial changes in *attitudes* effected by the seminars. Moreover, it seems reasonable to expect that the seminars might have more immediate effects on attendees' attitudes than on their behavior.

It is therefore important that the seminars promote attitudes consistent with responsible use of alcohol and support for Air Force alcohol policies. Key objectives for responsible use are to encourage attendees to consider the consequences of drinking in given situations and to consider factors other than alcohol in choosing activities and friends. Key objectives of policy support include increasing attendees' willingness to seek help for alcohol problems and reducing the stigma attached to participating in the Air Force treatment program. In addition, the Supervisor Seminar encourages supervisors to view positively their roles in the referral process.

Informational Objectives

Increasing knowledge about alcohol is another important goal of the Seminar Program. As with attitudes, the underlying rationale is that improved knowledge may lead to desirable behavior; it is also reasonable to expect that the seminars could have immediate effects on knowledge.

Regarding responsible use, the seminars emphasize the adverse effects of excessive alcohol consumption. Regarding Air Force policy, the seminars have two major purposes. The first is to explain that it is Air Force policy to help persons recover from alcohol problems rather than to punish them.[9] The second is to inform supervisors about procedures for entering persons into rehabilitation and to explain the types of treatment provided.

The foregoing describes the substantive basis for the seminar evaluation in this report. Chapter 5 discusses the procedures and results of that evaluation in detail. The intervening chapters provide further background needed for formulating the study conclusions.

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[9]Disciplinary action or separation is instigated by impairment of duty performance or other alcohol-related incidents, not by alcohol abuse itself.

Chapter 3

THE COST OF PREVENTION

The Air Force spent about $6.5 million on alcohol abuse control in FY 1977. Since this figure is far less than 1 percent of the Air Force budget ($32 billion in FY 1977), it is clear that the cost of prevention, in and of itself, is not a primary issue. Moreover, given the possible degradation of the Air Force mission and the human suffering caused by alcohol abuse, there is an obligation to support prevention activities, even though many benefits of such activities cannot be quantified in dollar terms. Therefore, a rigorous cost-benefit analysis of the prevention program is neither possible nor appropriate.

On the other hand, since prevention efforts consume resources, their cost is important relative to their effectiveness in preventing alcohol abuse. At issue is the relative efficiency of applying available resources to prevention rather than to other program components, primarily identification and treatment.

This chapter estimates the cost of prevention; to do so we must also estimate the cost to Social Actions of other activities of Social Actions personnel, namely, identification, treatment, administration, and support. These costs fall into three major classifications: pay and allowances of program personnel (i.e., of personnel responsible for prevention services), pay and allowances of the target population, and miscellaneous personnel costs. Because the Social Actions functions are relatively more expensive than prevention functions provided by others in the Air Force, we first discuss the cost of Social Actions personnel and the Social Actions Seminars. We next analyze the cost of the BMT lesson.[1] The chapter concludes with a summary of prevention costs and their implications.

SOCIAL ACTIONS PERSONNEL COST

Our major effort established the pay and allowances of base-level Drug/Alcohol Social Actions personnel and estimated their allocation among major Drug/Alcohol functions. From structured interviews at the 13 sample bases we determined that pay and allowances accounted for 77 percent of base-level Drug/Alcohol expenditures. This agrees with the FY 1979 budget submissions for the Social Actions program.

Base-level expenditures other than pay and allowances include facilities maintenance, materials and supplies, training, and travel (PCS moves and temporary duty). These belong in the program support category because they cannot be directly attributed to specific functions in the Drug/Alcohol mission. Therefore we do not include them in the following discussion.

We were assisted by the Occupational Measurement Center (OMC), Air Training Command. The OMC routinely surveys people in Air Force career fields to determine what tasks are performed by different categories of workers. The Center worked with Rand to construct

[1]In much of the analysis to follow, we must include the cost of drug abuse prevention because there is no reliable way to separate it from the cost of alcohol abuse prevention. In the area of treatment, however, we were able to make this separation because alcohol abusers are treated separately from drug abusers.

a survey instrument that would gather data useful for both routine analysis and the estimation of time spent on major Drug Alcohol functions by Social Actions personnel.

The resulting survey was unique in several respects. First, for complete coverage, the same instrument was administered to all officers and enlisted persons in the career field.[2] Next, to ensure the accuracy of the cost analysis, care was taken to group tasks by major functions and to avoid overlapping task statements. This required deletion of some tasks included in the previous survey. Also, questions were added to elicit time spent away from duty by clients with drug or alcohol problems. Finally, OMC staff made special efforts to obtain a high response rate. The results of these efforts are shown below:

	Officers	Enlisted
Questionnaires distributed	70	296
Return rate	83%	82%

To determine the total pay and allowances of Drug Alcohol personnel, we first established the number of people assigned to the Drug Alcohol career field. Two sources were used—the Hq. USAF budget submission and the personnel list provided by Consolidated Base Personnel Offices (CBPOs) for the Occupational Survey. Hq. USAF listed 446 military persons, with 390 (87 percent) at base level for FY 1977. The CBPO data showed 393 assigned (officers and enlisted persons below E-9), with 346 at base level.[3] In addition, Hq. USAF data showed 77 civilian personnel involved in the Drug Alcohol Abuse Control Program; the Occupational Survey did not include civilians. For the cost analysis, we used the figures of 346 military and 77 civilian personnel.

Next, we determined the pay grade distribution for base-level Drug Alcohol personnel from Occupational Survey data. Because this is a lateral career field, it contains a relatively large number of higher-ranking airmen, as shown in Table 3.1.[4] Using this distribution and tables of pay and allowances for 1976 and 1977,[5] we estimated pay and allowances for base-level Drug/Alcohol personnel at about $6.1 million. This includes the pay and allowances of civilian employees, which we estimated from standard tables.

The percentages of time spent by base-level personnel on major Social Actions functions were also derived from the Occupational Survey. Tasks were grouped by the following functions: administration (supervising, planning and managing, evaluating), prevention education (standardized seminars, other prevention), identification of alcohol or drug abusers, treatment (Alcohol Awareness Seminars, local rehabilitation for alcohol abuse, local rehabilitation for drug abuse), support, and contributions to other Social Actions programs, such as race relations. Tasks appearing in each category are listed in Appendix C. After summing the times spent by all respondents on tasks related to a particular function, we removed time spent by personnel at higher headquarters and by instructors for the course at Lackland Air Force Base. We assumed such people perform only administration, support, or instruction of Drug Alcohol personnel, and prevention or education functions other than instruction in Social Actions

[2]The first Occupational Survey of the Social Actions career field established that officers and enlisted persons perform about the same tasks. (Occupational Survey Branch, 1975.)

[3]The differences in the two sources may be accounted for by personnel who were not counted in CBPO records because they were in transit from one station to another when the survey was administered; such people could not contribute to the Drug Alcohol mission.

[4]This table excludes airmen with grade E-9 covered in the survey because they are assigned to Equal Opportunity and Treatment functions and are primarily at higher headquarters, rather than at base level.

[5]Department of the Air Force, FY 1976 and FY 1977, Table 20.

Table 3.1

DISTRIBUTION OF PAY GRADES FOR BASE-LEVEL MILITARY SOCIAL ACTIONS PERSONNEL[a]

Enlisted		Officer	
Pay Grade	Percent	Pay Grade	Percent
E-9[b]	--	--	--
E-8	0.4	--	--
E-7	9.8	O-5 - O-9	0
E-6	25.5	O-4	1.2
E-5	33.6	O-3	14.9
E-4	11.4	O-2	2.8
E-1 - E-3	0	O-1	0.4
Total enlisted	80.7	Total officer	19.3

[a]Taken from Occupational Survey Data for spring 1977.

[b]Excluded because these airmen were assigned to Equal Opportunity and Treatment, primarily at higher headquarters.

Seminars; this assumption is supported by the survey data and by the descriptions of these positions in the previous Occupational Survey Report.[6]

The resulting time allocations are shown in Table 3.2, along with the estimated cost of each function to the Air Force (in Social Actions personnel pay and allowances).[7]

Although the Airman and Supervisor Seminars account for a relatively small fraction of the total effort (around 11 percent), this is more than half of the time spent on prevention and nearly two-thirds of the time spent on alcohol treatment. Moreover, time spent on the seminars is three times that spent on identification of drug and alcohol abusers.

OTHER SEMINAR COSTS

The cost of Social Actions Seminars should include the value of time that attendees spend in seminars because time spent in attendance is lost to duty. To determine the value of this time, we multiplied, (1) the number of attendees in each seminar type by, (2) the fraction of annual productive time spent in the seminars (about 0.2 percent) by, (3) average annual attendee pay. Average pay was computed from pay grades reported in our evaluation questionnaire.

The results are given in Table 3.3, which lists Airman and Supervisor Seminar costs separately. Because there were about 40 percent more attendees at the Supervisor Seminars

[6]We also adjusted the data slightly to account for the interchange of small amounts of time between the Drug Alcohol and other Social Actions career fields (on the order of 2 percent).

[7]Since our field visits led us to conclude that civilians in Social Actions units perform about the same duties as military personnel, civilian pay and allowances are included in all calculations.

Table 3.2

DISTRIBUTION OF PAY AND ALLOWANCES OF BASE-LEVEL SOCIAL ACTIONS PERSONNEL AMONG MAJOR FUNCTIONS: 1976-1977

Function	Time Spent (%)	Pay and Allowances[a]
Prevention/Education		
Social Actions seminars	10.8	662
Other prevention/education	9.4	572
Total prevention	20.2	1234
Local Rehabilitation		
Alcohol awareness seminars	1.9	116
Treatment of alcohol problems	17.6	1075
Treatment of drug problems	15.5	950
Total rehabilitation	35.0	2141
Identification	3.4	208
Administration and Support	41.4	2529
Grand Total	100.0	6112

[a]Thousands of dollars.

than at the Airman Seminars, and because of the higher average pay and allowances of Supervisor Seminar attendees, the time foregone in such attendance cost nearly twice as much as the time foregone in Airman Seminars.

The only other costs separately attributable to the Social Actions Seminars are the pay and allowances of active duty personnel (other than Social Actions personnel) who address the seminars. (Civilians who speak at the seminars are usually not remunerated.) Data from the sample bases suggest that $300 per base would more than cover the annual cost of guest speakers. Hence, we estimated their cost to the Air Force at the 126 bases with Social Actions units as about $38,000.

BASIC MILITARY TRAINING PREVENTION COST

The cost of the 4-hour lesson given new recruits in BMT is entirely personnel cost. We did not analyze this cost in detail, but may readily estimate its magnitude by making a few assumptions, namely: (1) BMT instructors on average are staff sergeants (E-5), (2) new recruits are airmen, basic (E-1), and (3) the average size of a BMT class is 15 people. From these assumptions, with 84,500 recruits during the period of interest,[8] we calculate the cost of the BMT lesson to be approximately $138,200 for instructors and $1,208,000 for attendee time foregone. Whether attendees' time should be considered is debatable, because recruits otherwise undergo training rather than engaging in an operating mission.

[8]Office of the Secretary of Defense, 1976.

Table 3.3

RESOURCE EXPENDITURES FOR SEMINAR ATTENDEES: APRIL 1976-MARCH 1977

Seminar Group	Attendance	Pay and Allowances[a]
Sample Bases		
Airman Seminar	9,659[b]	176
Supervisor Seminar	13,837[b]	425
Total	23,496	601
Total Air Force		
Airman Seminar	70,995[c]	1,291
Supervisor Seminar	101,686[c]	3,124
Total	172,681[d]	4,415

[a]Thousands of dollars. At sample bases, average annual pay and allowances were $7856 (Airman Seminar) and $13,269 (Supervisor Seminar). Calculation assumes that out of 144 x 12 hours available annually, 4 were spent in the seminars.

[b]From structured interviews at sample bases.

[c]Extrapolated from attendance rates at sample bases.

[d]This number is less than half the number shown in the Drug/Alcohol Abuse Control Statistical Summary for a comparable period (Department of the Air Force, 1977, p. 20). The procedure for reporting seminar attendance, from which the Air Force figure was derived, was changed during the reporting period. Undoubtedly this change gave rise to inaccuracies in reporting, since the Air Force figure would have meant that more than 70 percent of the Air Force attended seminars in a 12-month period.

SUMMARY OF PREVENTION COSTS

The costs for prevention of alcohol and drug abuse are summarized in Table 3.4. The Supervisor Seminars cost the most of all prevention activities, accounting for over half of the total. Revisions in the Supervisor Seminar Program that affect the number of attendees or the time spent in the seminars have the largest potential effects on expenditures. The effects of such changes on the cost of Social Actions personnel would vary among the bases, largely because of variations in staffing. The many bases that have small staffs might be little affected, even if the Supervisor Seminar Program were terminated.

The Airman Seminars offer smaller opportunities for savings, since they account for less than 25 percent of prevention cost. From a cost point of view, changes in the BMT program seem even less interesting, especially since attendee time might not be considered of operational value to the Air Force.

Table 3.4

COST OF ACTIVITIES TO PREVENT ALCOHOL AND DRUG ABUSE: APRIL 1976-MARCH 1977

Program	Program Personnel[a]	Attendees[a]	Total Cost[a]
Basic Military Training	138	1208	1346
Airman Seminars	272[b]	1291	1563
Supervisor Seminar	390[b]	3124	3514
Other Social Action Prevention	572	--	572
Total prevention			6995

[a]Thousands of dollars.
[b]Prorated on basis of attendance.

Chapter 4

FIELD ASSESSMENT OF SOCIAL ACTIONS SEMINARS

This chapter describes our field assessment of Social Actions Seminars. This assessment was carried out at the 13 sample bases and at 1 additional base, where we pretested the evaluation questionnaire. The assessment is based on observations of seminar operation, informal and structured interviews of Social Actions staff, and responses to the questionnaire.

GENERAL OPERATION

Seminars were usually given during the middle of the week, the frequency being determined by the size of the base, the size of the incoming population, and the size of the class desired by the Social Actions unit. Class size depended on both the facilities available and the method of instruction. Instructors who used role-playing or small-group interaction preferred smaller classes than did instructors who relied on lectures and films. Seminars typically lasted about 3 hours rather than the allotted 4; for the last 15 minutes of most seminars, attendees filled out the critique sheets supplied with the seminar materials described in Chapter 2.

Three seminars of each type were usually given each month; attendance averaged 20 to 25 persons. There were large variations, however. We found one Social Actions unit that scheduled one seminar of each type each month; on average, 40 persons attended these seminars. At one of the overseas bases, on the other hand, a high rotation rate and a preferred class size of 15 to 20 resulted in as many as six Airman and nine Supervisor Seminars during the months when most people were moving to the base.

Two of the 14 bases did not follow the general rule for separating seminar attendees. At one, all newly assigned persons attended the Airman Seminar, whereas only people actually in supervisory positions attended the Supervisor Seminar. All the supervisors (including civilians) from a selected unit attended together so that they might focus on particular problems in that unit. At the other base, only the Supervisor Seminar was given because of the preponderance of higher-ranking military persons and civilians in the base population. The seminar we observed included about one-third civilians.

At most bases three or four instructors shared teaching responsibilities. Enlisted persons almost always taught the Airman Seminar; officers or senior enlisted persons usually taught the Supervisor Seminar. We observed civilians teaching both of the seminars.

Support for the seminar program by the Drug/Alcohol staff was varied as were instructional approaches and individual backgrounds of formal training and experience. We are unable to relate these variations to variations in the quality of instruction.

ATTENDANCE

Seminar attendance is one of several required appointments scheduled by CBPO for newly assigned persons. Social Actions notifies the CBPO of the seminar dates and receives from them

the list of people scheduled for each date. In general, attendance records are carefully kept, and most Social Actions units contact individuals directly to reschedule attendance for missed seminars.

To be effective, the seminars should reach a high percentage of the target population. Therefore, we collected data on the number of people who had attended the seminars and on the number scheduled over a 6-month period. On average, 85 percent of the persons scheduled for the seminars did, in fact, attend. However, at one base the attendance rate for one seminar was only 43 per cent, while at another, it was 98 percent. These variations may reflect differences in base-level support for the program.

AIRMAN SEMINAR

Content

There was a common core of material covered at all of the bases comprising

- Air Force policy about alcohol and drug abuse.
- Conditions and laws in the surrounding community regarding alcohol and drug use.
- Individual responsibility for using possibly harmful substances.

Although all instructors mentioned touching upon these subjects, the relative emphasis placed on alcohol or drugs varied from base to base. Because of the illegality of most drug use, discussion of local conditions often focused on drugs. At two bases, civilian policemen addressed the seminars on this issue, and, in one case, attention was focused on the topic by the presence of a dog trained to detect illegal drugs.

Some instructors began the Airman Seminar by assessing the class's main interests and then directing their discussion accordingly. At a number of bases, interest focused on the local availability and quality of drugs, and at one base instructors included information on first aid for drug reactions. At another base, instructors included information on alternative recreational activities in the area, such as hiking and skiing clubs.

About half of the Social Actions staff interviewed in the Continental U.S. said that they emphasized drugs during the Airman Seminar; the other half reported putting equal emphasis on drugs and alcohol. Because of interest in drugs, usually the instructors had to initiate discussion of alcohol problems. Staff at both PACAF bases, however, said they emphasized responsible drinking behavior and alcohol abuse.

Instructional Method

Instructors relied largely on lecture and films; we found only one Social Actions unit that did not include films in the Airman Seminar. Films generally took from 30 to 60 minutes. Several films depicted ordinary people with alcohol problems and dramatized ways to ensure that such people entered treatment.

Half the instructors reported using class discussion to explore attitudes about drug and alcohol use. We observed one unit in which community reactions to increased drug use were explored through a combination of role-playing and guided discussion. Because of the time spent in role-playing, the substantive content of this seminar was minimal.

A Seminar Consistent with the Manual

Our sample bases included one at which the Drug Alcohol staff had been given permission to test an intensive program to treat alcohol and drug abuse. We observed the Airman Seminar given at this base and found that it thoroughly covered the content of the seminar materials, including alcohol abuse. We describe this seminar briefly because the variability in the Airman Seminars led us to analyze this program separately. These results are described in the next chapter.

During the first 2 hours the instructor spent equal amounts of time discussing drug and alcohol abuse; neither was emphasized to the detriment of the other. In addition to the Air Force materials for the Airman Seminar, the lecturer discussed the "twenty-six symptoms" of progressive alcoholism, promulgated by the National Council on Alcoholism. He described Air Force policy regarding people with alcohol problems and discussed the phases of the treatment program. He also detailed the effects, availability, and quality of drugs in the local area.

Over an hour was spent in showing a film depicting a family man becoming an alcoholic and the effects on his family and work. The film also covered the proper supervisory actions in dealing with the suspected alcoholic.

SUPERVISOR SEMINAR

Generally, more persons attended the Supervisor Seminar than the Airman Seminar. Many attendees were not actually performing supervisory duties, however; only 42 percent had supervised others during the preceding 6 months, generally at the base of previous assignments. Moreover, many supervisors were in a period of transition when they attended the seminar. Six months following the seminars, 44 percent of the respondents reported supervisory duties, but nearly half of them had not been supervising initially.

The content of the Supervisor Seminar was less variable than that of the Airman Seminar. All instructors reported emphasizing problems arising from alcohol abuse and making definite efforts to get supervisors to confront persons with alcohol problems and refer them for treatment. Instructors also reported presenting Air Force policy on drug abuse. They described programs available for treatment and the supervisor's responsibilities with regard to rehabilitation.

Lecture was the primary method of instruction, but some instructors used role-playing to teach confrontation techniques. As for the Airman Seminar, films lasting from 30 to 60 minutes were usually shown; only one unit did not use films. Speakers from outside of Social Actions, such as members of the base legal or medical staff, made presentations at some seminars.

SUMMARY

The field assessment gave considerable insight into the objectives and operation of seminars. We found that the relative emphasis placed on alcohol and drugs in the Airman Seminars varied widely, as did their substantive content. All instructors for the Airman Seminars reported touching upon Air Force policy regarding drug and alcohol abuse, local conditions (particularly regarding drug abuse), and responsible use of potentially harmful substances.

The Supervisor Seminars were more consistent in focus. They covered Air Force policy regarding alcohol abuse, Air Force treatment programs, and the supervisor's responsibilities

regarding subordinates with alcohol problems. Similar subjects concerning drug abuse were also covered but were not emphasized.

The foregoing discussion has reviewed seminar operation at the sample bases, giving particular attention to implementation of the program objectives described in Chapter 2. In the next chapter, we describe our evaluation of seminar effectiveness in promoting these objectives.

Chapter 5

SEMINAR EVALUATION SURVEY

Because the Social Actions Seminars constitute the primary component of the Air Force prevention program, we focused our evaluation on the issue of seminar efficacy. This chapter describes the procedures and results of the evaluation.

PROCEDURES

We noted in Chapter 2 that the main seminar goals are (1) to promote responsible use of alcohol, and (2) to generate awareness of and support for Air Force policies and programs concerning alcohol abuse. The objectives in these categories may be further distinguished according to whether they concern the behavior, attitudes, or knowledge of the attendee. We designed procedures to assess both the immediate seminar effects in each of these areas and the persistence of effects over time.

Overview of Evaluation Procedures

Rand staff visited 13 bases representing both CONUS and overseas comands. During each visit, a Rand representative administered questionnaires to persons arriving at Social Actions to attend the Airman or Supervisor Seminar. Before administering the questionnaires, the representative randomly assigned attendees to one of two groups. Persons assigned to the "seminar" group attended a seminar before completing the questionnaire. Individuals in the "control" group completed the questionnaire without attending a seminar. Six to 7 months later, respondents were resurveyed during a return visit. These procedures are summarized in Table 5.1.

Table 5.1

SURVEY GROUPS AND ADMINISTRATION PROCEDURE

	Survey Administration Procedure	
Survey Groups	Initial Survey	Follow-Up Survey
Seminar Groups		
Airman Seminar Supervisor Seminar	Surveyed immediately after receiving seminar	Resurveyed 6 to 7 months later
Control Groups		
Airman Seminar Supervisor Seminar	Surveyed without receiving seminar	Resurveyed 6 to 7 months later

To assess seminar effects, we compared the responses of persons in the seminar and control groups. We used one procedure to compare attitudes and knowledge, and a different one to compare behavior. Although surveys can measure immediate effects on attitudes and knowledge, different procedures were required because effects on behavior must be assessed after a reasonable period following a seminar. The types of comparisons made between the seminar and control groups are outlined below:

1. The *initial survey* results for the two groups were compared to assess immediate seminar effects on attitudes and knowledge.
2. The *follow-up survey* results for the two groups were compared to assess the persistence of attitude and knowledge effects a half-year after the seminars. Also, if the initial survey did not reveal a seminar effect, a significant one at follow-up suggests a longer-term effect.
3. The results of both surveys were used to assess seminar effects on behavior. For each of the two groups, behavior during the 6-month period following the seminars was compared with behavior during the 6-month period preceding them. These comparisons indicated whether any changes in behavior had occurred, and, if so, whether the pattern of change was different for the seminar group than for the control group. Survey questions were based on the objectives set forth in the Air Force seminar instruction manuals and on previous research in the alcohol field, drawing particularly from the Rand Prevalence Study (Polich and Orvis, 1979).[1]

Base Selection

To use resources efficiently, we evaluated the seminars at the 13 bases visited during the Rand Prevalence Study. The selection of these installations is discussed at length in the Prevalence Study report (Polich and Orvis, 1979). We briefly review the procedures here.

In general, 2 bases were randomly chosen to represent each of the eight largest Air Force commands, which include both CONUS and overseas locations.[2] There were two exceptions: Osan Air Base was specifically chosen as one of the PACAF bases because assignment there is a remote tour of duty; and 1 base (Wright-Patterson) was chosen to represent the smaller Systems and Logistics commands. The sample bases are listed in Table 5.2, which also shows the percentage of Air Force personnel assigned to the commands these bases represent.

Comparisons between the demographic characteristics of seminar attendees at the sample bases and of attendees throughout the Air Force are not possible, because Air Force-wide attendee data were not available during the study period. However, we believe that attendees at the sample bases are representative of attendees throughout the Air Force for several reasons. First, as noted above, the sample bases represent the eight largest Air Force commands, which comprise nearly 80 percent of all Air Force personnel. Second, persons stationed at the sample bases are representative of the general Air Force population on the demographic characteristics most associated with alcohol use (Polich and Orvis, 1979). Finally, our inter-

[1]Appendix A contains the questionnaire administered at *follow-up*; it is the questionnaire administered initially but with six additional items.

[2]The selection of 2 bases for the USAFE and PACAF commands is deliberate oversampling to permit analysis of possible CONUS-overseas differences. The estimated rates of alcohol problems are not materially affected by this oversampling.

Table 5.2

BASES SAMPLED BY COMMAND

Command	Percent of Air Force in Command	Bases Sampled in Command
SAC	20	March Minot
TAC	14	Seymour Johnson Nellis
ATC	13	Sheppard Mather
MAC	12	Little Rock Scott
AFSC, AFLC	7	Wright-Patterson
USAFE	8	RAF Bentwaters Hahn
PACAF	4	Clark Osan
All others	22	--

views with Social Actions staff at the sample bases indicate that their procedures for selecting seminar attendees are consistent with those used throughout the Air Force.[3]

Survey Administration

Several weeks before each visit, we contacted Social Actions staff to discuss study procedures. We particularly stressed our need for at least 50 attendees in the Airman and Supervisor Seminars to ensure adequate sample sizes for follow-up. In some cases, seminar schedules had to be adjusted to meet this criterion. This typically involved combining persons scheduled to attend two or three different seminar sessions into one group. This group was then scheduled to attend a seminar during the Rand visit, and Social Actions staff made every effort to ensure that they did so. The result was that at most bases about 100 persons completed the questionnaire. The procedure of combining sessions did not materially alter the size of the seminar classes, since, as described below, only half of the persons scheduled for the seminars were required to attend.

As we mentioned previously, a Rand representative randomly assigned approximately equal numbers of persons to the "seminar" and "control" groups just before the Airman or Supervisor Seminar began. The representative then took the control group to a different room to administer the questionnaire. The seminar group remained behind to attend class and completed the questionnaire immediately thereafter. In administering the questionnaire, the

[3]The one exception was Nellis Air Force Base, where all new personnel attend the Airman Seminar and all the supervisors in a unit attend the Supervisor Seminar together.

representative indicated that all information provided would be confidential and would not be associated with the respondents by name. The representative explained, however, that a list of respondents would be kept *temporarily* so they could be contacted for the follow-up survey, and that this list would be destroyed at the conclusion of the evaluation. Finally, the control group was informed that they were excused from attending the seminar at their present base because of the importance of their participation in the study.

Most respondents took about 30 minutes to complete the questionnaire. Although some finished sooner, no one was released before the half-hour point. During the survey session, the Rand representative answered questions raised by the respondents. Six individuals refused to complete the questionnaire and were excused.

These procedures were used for both the Airman and Supervisor Seminars. Between 6 and 7 months after the initial administration, a Rand representative returned to administer the follow-up survey. Persons were scheduled through their unit commanders for one of three sessions during the first day of the visit. To further ensure a high response rate, make-up sessions were given on the second day and follow-up questionnaires were mailed to persons who were temporarily off base or otherwise unavailable.

Sample Characteristics

The numbers of respondents who completed the initial and follow-up questionnaires are shown in Table 5.3. The respondents are separated according to whether they were assigned to a seminar or control group and whether they were originally scheduled for the Airman or Supervisor Seminar. Unfortunately, it was not possible to return to the two USAFE bases. Thus, the numbers shown for the follow-up survey represent respondents at 11, rather than 13 bases. The percentage of initial respondents that completed the follow-up survey at the 11 revisited bases is shown in the rightmost column of the table. As indicated, an excellent overall response rate of 90 percent was obtained for the available sample at follow-up; the rates for

Table 5.3

NUMBER OF RESPONDENTS IN SURVEY GROUPS

Assigned Group	Type of Seminar	Survey Administration		Follow-Up Response Rate[a] (%)
		Initial	Follow-Up	
Seminar group	Airman Seminar	318	225	93
	Supervisor Seminar	327	243	87
Control group	Airman Seminar	331	231	91
	Supervisor Seminar	371	282	87
Total sample		1347	981	90

[a]The follow-up response rates represent the percentage of the available sample that was resurveyed at follow-up. Initial survey participants who had a PCS or separation, or who were stationed in USAFE, were not available for the follow-up survey.

Table 5.4

CHARACTERISTICS OF SEMINAR AND CONTROL GROUPS
(In Percent)

Characteristic	Survey Administration			
	Initial		Follow-Up	
	Seminar Group	Control Group	Seminar Group	Control Group
Age				
17-20	28.7	27.0	21.2	22.5
21-24	33.2	30.3	33.0	26.8
25-30	18.3	20.2	20.0	24.1
31-39	15.0	15.2	17.6	17.4
40+	4.8	7.3	8.2	9.2
Sex				
Male	90.1	89.8	88.3	88.6
Female	9.9	10.2	11.7	11.4
Education				
Not high school graduate	6.8	6.6	6.6	5.7
High school graduate	74.7	75.6	71.3	74.3
College graduate	18.5	17.8	22.1	20.0
Pay Grade				
E1-E4	67.2	62.9	59.5	56.4
E5-E6	16.6	18.7	16.9	20.5
E7-E9	5.9	6.9	7.5	8.7
O1-O3	7.5	8.6	11.6	9.5
O4-O6	2.8	2.9	4.5	4.9
Marital Status				
Not married	48.0	46.6	39.1	39.9
Married, unaccompanied	9.4	9.9	4.7	5.1
Married, accompanied	42.6	43.5	56.2	55.0

both seminars and for both the seminar and control groups are uniformly high, ranging from 87 to 93 percent.[4]

The high follow-up rates together with the random assignment of study participants to the seminar and control groups imply that the two groups should be similar in demographic characteristics at each survey administration. Table 5.4 clearly indicates that at each evaluation the seminar and control groups are comparable in age, sex, education, and marital characteristics—the background factors most strongly correlated with alcohol use. For interest, the distribution of pay grade, combining age and education characteristics, is also shown. The similarity of the seminar and control groups implies that background factors are not likely to account for any alcohol-related differences found between the two groups.

[4]Thirteen percent of the available sample completed the follow-up questionnaire by mail. In addition to the respondents in USAFE, a small number who were unavailable because of a PCS or separation were excluded from these calculations.

Although the seminar and control groups are similar at each administration, the full follow-up sample contains a smaller percentage of young, unaccompanied persons than the initial sample. This difference is largely due to the exclusion of the two USAFE bases. It does not materially affect the seminar evaluation, since drinking *behaviors* were compared only for respondents to both surveys, and we found no instance in which a significant *attitude* or *knowledge* effect in the initial administration was attributable to the USAFE results. (See Appendix D.) Therefore, the full data set from all 13 bases has been used in the initial survey analyses whenever possible.

RESULTS OF THE SEMINAR EVALUATION SURVEY

This section is organized according to the two seminar goals noted earlier. First, we evaluate seminar effectiveness in promoting responsible alcohol use. We then consider effectiveness in generating awareness of and support for Air Force alcohol policies and programs. In addition, we review the consistency of the behaviors, attitudes, and beliefs reported by the survey sample with the goals of the prevention program.

Responsible Use of Alcohol

Behavior. The ultimate goal of prevention is to reduce excessive alcohol consumption and the occurrence of alcohol-related problems. We used a variety of measures to assess the success of the seminars in meeting this objective. For the most part, these measures correspond to indices developed in the Prevalence Study; their construction is detailed in that report. One important difference should be noted, however. The measures used here assess the respondent's behavior in the 6-month period before the survey, rather than in a 1-year period as used in the Prevalence Study. The shorter time frame facilitated timely reporting to the Air Force and helped to ensure a high response rate at follow-up, yet was long enough to assess the persistence of seminar effects. Its use implies that the problem rates obtained here should be lower than those in the Prevalence Study and precludes direct comparisons between them. The validity of the measures is not affected, however.

Our alcohol problem measures are as follows:

1. *Overall problem rate*—the percentage of the sample that had serious alcohol-related problems as defined in the Prevalence Study. The index covers a broad range of problems, including high rates of alcohol dependence symptoms, impaired job performance, and a variety of family, health, and police-related incidents.
2. *Dependence symptoms*—the mean number of symptoms experienced. The symptoms are serious indicators of alcohol dependence, including blackouts, morning drinking, gross tremor, and inability to stop drinking before becoming intoxicated.
3. *Days of work lost*—the mean number of full days lost from work because of drinking. The time lost was based on the number of days the respondent reported impaired performance, missing entire or partial days of work, or being high while on duty.
4. *Daily alcohol consumption*—the average ounces of ethanol consumed daily. (An ounce of ethanol equates to approximately two alcoholic beverages.) The index includes both typical drinking days and days when large amounts of alcohol were consumed.

5. *Intoxication incidents*—includes the number of days that the respondent reported being drunk or sick because of drinking and the number of times the respondent reported being intoxicated for several (counted as three) days. The rate represents the mean number of incidents rather than days, since the events reported are not independent.
6. *Days drove while intoxicated*—the mean number of days on which respondents drove cars just after consuming five or more drinks in a 2-hour period.

Problem rates were calculated separately for the 6-month periods preceding the initial and follow-up surveys. We determined whether the rates changed following the seminars and, if so, whether the amount of change differed significantly between attendees and persons in the control group.[5] The results of these analyses are given in Table 5.5.[6]

Table 5.5

ALCOHOL PROBLEM RATES

Behavior	Survey Administration	Survey Group: Seminar Group	Survey Group: Control Group
Overall problem rate (percentage of sample)	Initial	6.0	7.4
	Follow-up	6.6	6.6
Dependence symptoms (number of symptoms)	Initial	2.3	3.0
	Follow-up	2.1	3.0
Days of work lost	Initial	0.2	0.1
	Follow-up	0.1	0.2
Daily alcohol consumption[a] (ounces of ethanol)	Initial	0.6	0.7
	Follow-up	0.5	0.6
Intoxication incidents[a] (number of incidents)	Initial	5.7	6.1
	Follow-up	4.2	5.6
Days drove while intoxicated	Initial	1.2	1.8
	Follow-up	1.0	1.2
(Minimum N)		(429)	(479)

[a]The rate at follow-up is significantly lower than the initial rate irrespective of whether the person attended a seminar or not ($p < .05$ by ANOVA).

[5]This represents a mixed ANOVA design, in which seminar attendance is the between-subjects factor and survey administration is the repeated measure.

[6]Because a few persons reported very large numbers of incidents on measures 2 through 6, the means were proportional to the standard deviations. Therefore, the analyses of variance were performed on the transformed variables equal to the natural logarithm of one plus the raw score, i.e., $\ln(1 + X)$. The ANOVA for the overall problem measure was performed on the raw score, i.e., 0 (no problem) or 1. Table 5.5 shows the index means prior to the transformation.

None of the six measures indicates statistically significant seminar effects. However, the rates of alcohol consumption and intoxication incidents reported at follow-up by the *full* sample were both significantly lower than those reported for the previous 6 months. Separate analysis of the two components composing the alcohol consumption measure revealed that the number of alcoholic beverages consumed on typical drinking days had not changed, but that the number of days on which atypically large amounts of alcoholic beverages were consumed had decreased significantly. This accounts for the reduction in consumption and undoubtedly also accounts for the reduction in intoxication incidents.

We do not know why respondents reported fewer occasions of consuming large volumes of alcohol at follow-up. However, since this change coincided with a PCS, it is possible that going away parties may have contributed to the higher rate assessed in the initial survey, or that, being new to their bases, respondents' opportunities to drink with friends may have been limited during the follow-up period. Whatever the reason, the change cannot be attributed to the seminars, since attendees and control subjects reduced consumption by about the same magnitude.

Attitudes. Given the apparent absence of effects on behavior, seminar effectiveness in promoting *attitudes* consistent with responsible alcohol use takes on added importance; longer-term behavioral changes could result from attitudinal effects. The seminars encouraged attendees to consider the negative consequences that may result from excessive drinking in such situations as before a duty day or just before driving an automobile. We evaluated seminar effects on attitudes in these situations by asking respondents to indicate the maximum number of drinks they would consume at a party on a day before duty and during a 2-hour period just before driving a car. Their responses are summarized in the upper panel of Table 5.6.

The data show that the seminars had an immediate effect on attendees' attitudes toward *drinking on a day before duty*. Attendees indicated they would consume a maximum of 2.9 drinks, compared with 3.2 drinks for the control group ($p < .05$ by one-way ANOVA for unequal n's). Although this difference is statistically significant, it is not large. Thus, it is not surprising that the limits chosen by the two groups were nearly identical at follow-up. The groups did not differ at either time on the maximum number of drinks they could safely consume before driving.

The seminars discourage heavy consumption of alcoholic beverages under any circumstances and encourage attendees to base their choices of activities and friends on factors other than alcohol. Several items assessing attitudes in these areas are paraphrased in Table 5.6. Respondents indicated their agreement or disagreement with each item on a five-point scale ranging from "strongly agree" to "strongly disagree." The figures in the table represent the percentage of respondents indicating they agreed or strongly agreed with the statement.

Immediately following the seminars, attendees were less likely than control subjects to state that alcohol is necessary at a party or that getting drunk occasionally is acceptable; however, these differences did not persist. No significant differences in attitudes were found at either time for the three remaining measures. On the positive side, we note that the majority of persons expressed attitudes consistent with those promoted by the seminars in the area of responsible drinking, and that the drinking limits that the respondents set for themselves were not excessive.

For clarity of presentation, Table 5.6 reports agreement rates for individual items. To increase reliability, we also combined the items in each panel into an overall measure and computed the mean five-point rating for the seminar and control groups. This analysis also showed no persisting seminar effect on attitudes; the results are discussed in Appendix D.

Table 5.6

ATTITUDES TOWARD RESPONSIBLE USE OF ALCOHOL

	Question Number	Survey Administration	Survey Group: Seminar Group	Survey Group: Control Group
Maximum Number of Drinks a Person Would Consume at a Party--				
On day before duty	88	Initial[a]	2.9	3.2
		Follow-up	3.1	3.0
Just before driving	89	Initial	2.5	2.6
		Follow-up	2.6	2.6
Percent Agreeing with the Statement That--				
OK to get drunk once in a while	37	Initial[a]	35.4	41.0
		Follow-up	38.1	40.5
Should stop companion from drinking too much	45	Initial	61.9	63.6
		Follow-up	67.3	64.1
A party isn't a party without alcohol	32	Initial[a]	11.2	15.9
		Follow-up	12.0	13.3
Drinking together helps unit morale	41	Initial	23.4	27.3
		Follow-up	29.5	25.7
Abstainers are not fun to be with	42	Initial	4.0	4.6
		Follow-up	4.3	3.9
(Minimum N)		Initial	(586)	(648)
		Follow-up	(433)	(465)

[a]Seminar-control difference significant at $p < .05$ by ANOVA.

Knowledge. The seminars disseminate information concerning the pharmacology of alcohol and the damage to health that may result from excessive drinking. Thus, we used the key pharmacology items in the seminar manuals to assess effects on knowledge. The results suggest that respondents were well informed about these matters and that the seminars did not increase knowledge. Detailed knowledge comparisons between the seminar and control groups are given in Appendix D.

We noted earlier that different seminars placed varying (and sometimes minimal) emphasis on information about alcohol. The above finding suggests that many instructors may have chosen not to emphasize this information because they were aware that the level of knowledge was already very high. Thus, the knowledge results are similar to those found for attitudes; i.e., the knowledge level concerning alcohol use seems consistent with prevention objectives, but the role of the seminars in promoting these objectives appears to be minimal.

Air Force Policies and Programs

We next examine seminar effectiveness in generating awareness of and support for Air Force policies and programs dealing with alcohol abuse.

Behavior. The ultimate policy objective of the seminars is to increase participation in the Air Force alcohol treatment program by persons needing help. To meet this objective, the seminars focus on increasing the willingness of supervisors to refer subordinates to the treatment program and on increasing the willingness of all attendees to participate in the program if they develop alcohol problems.

We asked the supervisors in each survey to indicate how many people they supervised in the preceding 6 months, how many of these persons had alcohol-related work impairment, and how many they referred to the Air Force treatment program. Supervisors also indicated how often they had taken each of several other actions for subordinates with alcohol-related work impairment during the same period.[7] To ensure that supervisors were familiar with the work of the subordinates they reported on and to avoid overlapping reports, we asked them to answer only about persons for whom they wrote performance ratings.

Table 5.7 shows the percentages of subordinates with perceived work impairment whom supervisors referred to the Air Force treatment program and told to cut down on drinking during the 6-month period preceding each survey. Only persons actually performing supervisory duties in the period preceding the indicated survey are included. Since supervisors had a PCS just before the initial survey, the subordinates they reported on initially were not the same as those reported on at follow-up, and had potentially different problems. For this reason, we used only the follow-up data to assess seminar effects. These data provide no evidence of significant impact on either of the actions listed. The initial rates, pertaining to the supervisors' former subordinates, are included in Table 5.7 for general interest.[8]

We noted earlier that the prevailing attitudes and level of knowledge about alcohol use appear to be consistent with prevention objectives. The data in Table 5.7 suggest that this is less true of supervisor referral behavior. Parallel to the Prevalence Study results, the data suggest that supervisors were generally aware of the 4 percent or so of their subordinates with serious alcohol-related work impairment; however, they referred only two out of every five impaired subordinates to the treatment program during the 6 months preceding each survey. In contrast, supervisors told four out of every five such subordinates to cut down on drinking. Undoubtedly, supervisors took this last action far more often than the others we assessed because it was the only alternative that did not involve revelation of the subordinate's problem to other persons. Unfortunately, as stressed by the seminars, it may be less likely to help the subordinate than the other actions.

Another seminar objective is to increase the percentage of persons who will seek help if they have alcohol problems, with emphasis on volunteering for the Air Force treatment program. We asked respondents to indicate whether they had ever taken several actions stressed by the seminars to deal with their own alcohol problems. For comparison, we also asked them to indicate whether they ever made a serious effort to control their drinking; this action does not involve disclosure of one's problems, and was treated as an inadequate step in the seminar materials.

The initial and follow-up survey results were compared to determine whether the seminars

[7]These included telling the subordinate to cut down on drinking, giving a lower performance rating, recommending disciplinary action, and referring the subordinate to a civilian treatment program.

[8]The rates of taking the other three actions that we assessed were quite small and showed no effects of seminar attendance; therefore they have not been included in Table 5.7.

Table 5.7

REFERRAL OF SUBORDINATES TO TREATMENT PROGRAM

Survey Administration	Action Taken	Survey Group: Seminar Group[a]	Survey Group: Control Group[a]
Follow-up	Referred to Air Force program	37	45
	Told to cut down on drinking	84	75
	(Number of subordinates with work impairment)	(19)	(20)
	(Number of subordinates)	(584)	(826)
	(Number of supervisors)	(101)	(113)
Initial	Referred to Air Force program	31	34
	Told to cut down on drinking	85	79
	(Number of subordinates with work impairment)	(48)	(58)
	(Number of subordinates)	(1145)	(1208)
	(Number of supervisors)	(124)	(147)

[a]Percentage of subordinates with work impairment for whom indicated action was taken.

increased the rates of taking the several actions. The results for two such actions—volunteering for the Air Force program and trying to control one's drinking—are shown in Table 5.8. The data suggest that the seminars did not significantly change the rate of taking either behavior.[9] The results for the several actions were similar to those for supervisors' intervention behavior; the action that did not reveal the problem was taken far more often than the other behaviors assessed.

Respondents were also asked whether they had ever taken the same actions for co-workers with alcohol problems.[10] Supervisors were asked two additional questions: whether they had documented the person's substandard performance; and whether they had threatened to take disciplinary action if the person did not volunteer for treatment. No significant seminar effects on the rates of taking these actions were found. (See Appendix D.) We therefore combined seminar and control subjects to form a profile chart showing the percentage of respondents who reported taking each of the actions during their Air Force careers. These data are given in Table 5.9, and are shown separately for respondents who were and were not supervising at follow-up.[11] The data indicate that supervisors were more likely to try to help persons with alcohol problems by discussing these problems with the individuals themselves or with other

[9]The other actions we assessed were (a) asking one's supervisor for help; (b) asking someone else in the Air Force for help; (c) asking a civilian for help; and (d) volunteering for a civilian program. Since the rates of taking these actions were small and revealed no effects of seminar attendance, the results have not been included in Table 5.8.

[10]The item concerning making an effort to control one's own drinking was excluded, since it is not relevant to other persons.

[11]Supervisors who never had subordinates with alcohol problems may be included in the supervisor group, and some former supervisors are included in the nonsupervisor group.

Table 5.8

ACTIONS TAKEN FOR OWN DRINKING PROBLEM

Action Taken	Question Number	Survey Administration	Survey Group: Seminar Group[a]	Survey Group: Control Group[a]
Volunteered for Air Force treatment program	150	Initial	1.7	1.5
		Follow-up	2.1	2.1
Made serious effort to control own drinking	146	Initial	13.5	16.2
		Follow-up	14.0	15.0
(Minimum N)			(422)	(468)

[a]Percentage of subordinates who have taken indicated action.

Table 5.9

ACTIONS TAKEN FOR MEMBERS OF OWN UNIT WITH DRINKING PROBLEMS[a]

Action Taken	Question Number	Status at Follow-Up: Supervisors[b]	Status at Follow-Up: Nonsupervisors[b]
Informed own supervisor	152	22.8	6.6
Informed someone else in Air Force who could help	153	16.4	4.2
Encouraged person to enter Air Force treatment program	155	16.8	5.0
Discussed problem with person and documented his substandard performance	158	11.5	---
Threatened disciplinary action if person did not volunteer for treatment	157	4.3	---
Encouraged person to enter a civilian treatment program	156	4.6	2.7
Informed someone not in Air Force who could help	154	4.1	2.3
(Minimum N)		(208)	(739)

[a]The results shown pertain to the full follow-up sample, irrespective of seminar attendance.

[b]Percentage who have taken indicated action.

Air Force personnel who could help, rather than by trying to force the individuals to seek treatment. (Compare the figure of 4.3 percent for "threatened discipline" with the rates for the actions listed above it.) The data also indicate that supervisors were much more likely to intervene than nonsupervisors, and that both groups were more likely to seek help for co-workers from Air Force personnel than from civilians.

Attitudes. Expecting that most respondents would not experience alcohol-related problems during the follow-up period, we also assessed their *willingness* to take action in the future if problems developed. Similarly, we assessed supervisors' willingness to take action if people in their units developed problems. The items used to assess these attitudes were the same as those used for assessing behavior. Respondents indicated their willingness to take each action on a five-point scale ranging from "definitely would" to "definitely would not." The percentage indicating "definitely would" was used to assess the effect of seminar attendance.[12]

These data are summarized in Table 5.10; they suggest that the seminars had little effect on willingness to seek help for oneself. Only one item—volunteer for a civilian treatment program—showed a statistically significant difference between seminar and control subjects. Moreover, this difference faded over time.[13]

Table 5.10

ATTITUDES TOWARD SEEKING HELP FOR OWN DRINKING PROBLEM

Action	Question Number	Survey Administration	Survey Group: Seminar Group[a]	Survey Group: Control Group[a]
Would make serious effort to control drinking	146	Initial	75.0	76.3
		Follow-up	81.0	76.8
Ask supervisor for help	148	Initial	27.5	24.3
		Follow-up	26.2	26.3
Ask other person in Air Force for help	149	Initial	31.9	27.0
		Follow-up	28.7	27.3
Volunteer for Air Force treatment program	150	Initial	33.2	30.9
		Follow-up	33.6	30.7
Ask civilian for help	147	Initial	30.2	28.9
		Follow-up	33.1	29.7
Volunteer for civilian treatment program	151	Initial[b]	24.4	18.7
		Follow-up	21.1	21.1
(Minimum N)		Initial	(586)	(644)
		Follow-up	(436)	(464)

[a]Percentage who would definitely take indicated action.

[b]Seminar-control difference significant at $p < .05$ by ANOVA.

[12]The scale also included "have done this," which was coded as "definitely would."

[13]The items shown in Table 5.10 were also combined into an overall measure, and the mean five-point rating was compared for the seminar and control groups. See Appendix D for these results.

The analysis of supervisors' willingness to intervene if people in their units developed alcohol problems revealed no seminar effects. Therefore, for brevity, the supervisor results are not presented.

We noted that supervisors referred fewer subordinates to the alcohol treatment program than might be hoped for and that many more respondents made a serious effort to control their drinking than revealed their problems to other people. The same pattern is evident for *attitudes* in Table 5.10. Although the vast majority say that they definitely would "make a serious effort" to control their drinking if they developed alcohol problems, many fewer respondents endorse actions that would necessitate their revealing the problem to other people. In particular, only one of every three respondents indicated that he/she definitely would volunteer for the Air Force treatment program.

These findings indicate a general reluctance to reveal one's alcohol problems and suggest that the seminars did not overcome this reluctance. The results considered next suggest, moreover, that they may have temporarily increased the stigma of participation in the alcohol treatment program.

Respondents indicated their agreement with each of several items concerning key Air Force policies on alcohol abuse on a five-point scale ranging from "strongly agree" to "strongly disagree." The statements are paraphrased in Table 5.11, which shows the percentage of the sample indicating agreement for each item.[14] Immediately after the seminar, attendees were *more* likely than control subjects to agree that entering the Air Force alcohol treatment program permanently damages the participant's career. In addition, attendees were *less* likely than control subjects to agree that successfully treated alcoholics should receive the same assignments and promotions as anyone else ($p < .05$ in both cases by one-way ANOVA for unequal n's). Counter to seminar objectives, these differences suggest that the seminars may have increased stigmatization of treatment program participation and raised concerns about the worth of persons who have alcohol problems.

Since neither of these effects was replicated at follow-up, the increase in stigmatization may have been temporary. Unfortunately, the data are not completely clear on this point. At follow-up, attendees were significantly less likely than control subjects to agree that the Air Force should be concerned about a person's drinking only if it interferes with his performance of duty ($p < .05$ by ANOVA). This difference is consistent with prevention objectives, since the seminars promote the concept that the Air Force is concerned with helping all persons who experience alcohol-related problems. However, the effect could also be caused by longer-term seminar stigmatization of such persons, consistent with other data in the table.

Notwithstanding possible stigmatization, the prevailing attitudes appear consistent with official policy. In particular, the vast majority of respondents agreed that the Air Force tries to help people with alcohol problems and that recovered alcoholics should receive the same promotions and assignments as anyone else. Similarly, only a small minority believed that entering the Air Force alcohol treatment program would permanently damage one's career. Unfortunately, it is equally clear that this general support was not always translated into a willingness to participate in Air Force alcohol programs or to encourage others to do so.

Knowledge. The seminars disseminate information about Air Force policies and programs dealing with alcohol abuse. Information about policy is targeted for all attendees and focuses

[14] Responses of either "strongly agree" or "agree" were considered to indicate agreement. The items were also combined into an overall measure, and the mean five-point rating was compared for the seminar and control groups. See Appendix D for these results.

Table 5.11

ATTITUDES TOWARD AIR FORCE POLICIES AND PROGRAMS DEALING WITH ALCOHOL ABUSE

Statement	Question Number	Survey Administration	Survey Group: Seminar Group[a]	Survey Group: Control Group[a]
Entering the Air Force program permanently damages your career	30	Initial[b]	19.5	15.4
		Follow-up	22.1	20.0
Entering the Air Force program reflects unfavorably on your unit	39	Initial	18.7	17.2
		Follow-up	16.6	14.5
Air Force tries to help persons with drinking problems	36	Initial	81.0	78.9
		Follow-up	76.2	78.6
Successfully treated alcoholics should receive the same promotions and assignments as anyone else	46	Initial[b]	80.7	88.8
		Follow-up	86.7	86.3
The Air Force should be concerned about a person's drinking only if it interferes with his duty performance	48	Initial	38.0	41.0
		Follow-up[b]	35.6	43.5
(Minimum N)		Initial	(640)	(696)
		Follow-up	(465)	(510)

[a]Percentage agreeing with indicated statement.

[b]Seminar-control difference significant at $p < .05$ by ANOVA.

on official support for the rehabilitation of persons with alcohol problems. Information about the treatment program is targeted for supervisors; it explains the steps required for entry and the types of treatment provided.

Several items stating key policies are paraphrased in Table 5.12. Respondents indicated whether each statement was true or false. (Items 64 and 68 have been reworded to make the statement of each item in Table 5.12 consistent with Air Force policy.) For clarity of presentation, the table shows the percentage of the sample answering each question correctly; a parallel analysis for the four items combined is shown in Appendix D.

The data in Table 5.12 suggest that the seminars caused little improvement in knowledge of Air Force policies dealing with participation in the treatment program. Of two immediate seminar effects, one appears to represent increased confusion concerning Air Force policy rather than increased knowledge about it: attendees were *less* likely than control subjects to

Table 5.12

KNOWLEDGE OF AIR FORCE ALCOHOL POLICIES

Policy	Question Number	Survey Administration	Survey Group: Seminar Group[a]	Survey Group: Control Group[a]
Volunteers for treatment are not disciplined	64	Initial	91.3	92.0
		Follow-up	92.9	92.6
Alcoholics are not discharged routinely	68	Initial	85.3	85.1
		Follow-up	89.4	88.0
A person cannot work in a high-risk assignment while in treatment	66	Initial[b]	80.7	85.0
		Follow-up	86.6	86.6
A person cannot reenlist while in treatment	67	Initial[b]	54.4	48.9
		Follow-up[b]	53.0	46.1
(*Minimum N*)		Initial	(605)	(652)
		Follow-up	(443)	(477)

[a]Percentage answering correctly.

[b]Seminar-control difference is significant at $p < .05$ by ANOVA.

know that high-risk assignments are proscribed during treatment. On the other hand, attendees *were* significantly more knowledgeable about prohibition of reenlistment during treatment. The latter effect was replicated at follow-up ($p < .05$ in all cases by one-way ANOVA for unequal n's).

The data in Table 5.12 also show that the level of knowledge about reenlistment eligibility was far lower than that concerning the other policies we assessed. Some confusion about this point may result from the complexity of the policy (described in Chapter 2) and from its oversimplification in the seminar manuals. While it is generally true that treatment program participants must successfully complete rehabilitation before they can reenlist (as stated in the manuals), self-referred participants without impairment of duty performance *are* normally permitted to reenlist while in treatment.

Several items concerning the rehabilitation procedures covered in the Supervisor Seminar are paraphrased in Table 5.13. Respondents were asked to choose the correct answer for each item from several alternatives provided.[15] The correct answers have been embedded in the statements in Table 5.13 and are printed in italics. For each item, the percentage of persons *choosing the correct answer* is shown.

During our site visits, we found that Supervisor Seminar instructors emphasized this area of knowledge. The initial survey results leave little doubt that these efforts were effective in

[15]The alternatives for questions 179 and 180 were "base medical officer," "security police," "squadron commander," "first sergeant," "immediate supervisor," "Social Actions personnel," and "chaplain." The alternatives for questions 182 through 184 were "always," "usually," "sometimes," "never," and "don't know."

Table 5.13

SUPERVISOR KNOWLEDGE ABOUT THE AIR FORCE ALCOHOL TREATMENT PROGRAM

Item	Question Number	Survey Administration	Survey Group: Seminar Group[a]	Survey Group: Control Group[a]
Medical Officer identifies a person as "alcoholic"	180	Initial	78.7	76.9
		Follow-up	83.5	80.9
Squadron Commander signs off entry into treatment	179	Initial[b]	68.0	41.1
		Follow-up	53.8	46.9
Program participants *always* receive counseling	182	Initial[b]	71.0	59.2
		Follow-up	70.7	67.5
Program participants *sometimes* go TDY to a hospital	183	Initial[b]	64.8	50.3
		Follow-up[b]	67.0	50.9
Program participants are *always* reviewed periodically by a rehabilitation committee	184	Initial[b]	48.8	36.7
		Follow-up	52.5	46.1
(Minimum N)		Initial	(103)	(124)
		Follow-up	(78)	(96)

[a]Percentage answering correctly.

[b]Seminar-control difference is significant at $p < .05$ by ANOVA.

the short run, showing consistently significant effects ($p < .05$ in all cases by one-way ANOVA for unequal n's). The one exception was that the majority of supervisors in both groups knew that a medical officer must diagnose a person as "alcoholic." The follow-up results suggest, however, that 6 months after the seminars were given, very little difference in knowledge about the treatment program remained between supervisors who had attended a seminar and those who had not. Only one item—that program participants sometimes go TDY to a hospital for treatment—showed a significant effect that persisted over the 6-month period.

Analyses for Subpopulations of Attendees

Thus far we have found little evidence that the seminars effectively promote responsible alcohol use or generate support for Air Force policies concerning alcohol abuse. Although the seminars have some initial effects on alcohol-related attitudes and on supervisors' knowledge about the Air Force treatment program, these benefits appear to diminish rapidly, leaving little evidence of effects on attitudes, knowledge, or behavior 6 months later.

The likely explanation of these findings is that a seminar format does not provide a strong enough stimulus to have lasting effects. This interpretation is consistent with previous alcohol education research in the civilian population. An alternative explanation, however, is that the seminars are effective for first-time attendees, but repeated attendance produces no further

benefits. If this were the case, our analysis of the *full sample* could have concealed effects, because most Supervisor Seminar attendees and about one-third of the Airman Seminar attendees have already attended previous seminars. Such an effect would also suggest that seminar participation could usefully be limited to persons who had not previously attended one. To test this explanation, we performed a separate analysis for respondents who had not attended a prior seminar.[16]

Another possibility is that the absence of seminar effects in the full sample could be due to a failure of some programs to emphasize important areas covered in the seminar manuals. If this were the case, seminar benefits might be demonstrated for programs that followed the manuals more closely. To test this hypothesis, we selected the sample base whose seminar content we knew to be consistent with the manuals, and analyzed the data for this base.[17] The content of the Airman Seminar at this base was summarized in Chapter 4.

We also analyzed seminar effects at base level in greater detail. This involved combining the behavior, attitude, and knowledge items discussed in this chapter into scales and then testing for seminar-control differences with an ANOVA design that included base of assignment as a between-subjects factor. Because of the complexity of these results, they are presented in Appendix D rather than here. We note, however, that they are consistent with the data described below.

The results of the two subpopulation analyses are summarized in Table 5.14. The findings pertaining to persons who had not previously attended a seminar are shown under "No Prior Seminar." The results for respondents stationed at the base whose seminar followed the manuals closely are given under "Consistent Program." For comparison, the results for the full sample are summarized under "Full Sample." The left-hand portion of the table indicates the number of behavior, attitude, and knowledge measures on which seminar attendees were compared with control subjects. The measures are classified according to whether they pertain to responsible alcohol use or to Air Force policies dealing with alcohol abuse. The right-hand portion of Table 5.14 indicates the number of comparisons yielding statistically significant differences consistent with seminar objectives.

The data in Table 5.14 suggest that the seminars had similar effects on all three attendee groups. In each case, a few initial differences in attitudes between attendees and control subjects were found, particularly concerning responsible alcohol use. However, virtually no differences in behavior, knowledge, or attitudes were found at follow-up. Thus, there is little evidence that the seminar program is effective in promoting prevention objectives for new attendees or when content is based closely on the designated seminar materials.

Summary

Seminar attendees were compared with nonattendees on a wide variety of measures assessing behavior, attitudes, and knowledge related to responsible alcohol use and support of Air Force policies concerning alcohol abuse. The results suggest that the seminars had no impact on behavior and only limited effects on attitudes and knowledge. These effects were temporary and were confined to two areas: attitudes about alcohol use and supervisors' knowledge about

[16]We included as new attendees only persons who had been in the Air Force less than 3 years and whose previous assignment was to a training base. Since the number of supervisors in this group was quite small, objectives unique to supervisors were not tested. For similar reasons, we did not assess help-seeking behaviors by persons experiencing drinking problems.

[17]Since the number of persons scheduled for the Supervisor Seminar at this base was quite small, objectives unique to supervisors could not be tested. For similar reasons, help-seeking behaviors could not be assessed.

Table 5.14

SUMMARY OF SEMINAR EFFECTS FOR FULL SURVEY SAMPLE, PERSONS NOT ATTENDING A PRIOR SEMINAR, AND PERSONS STATIONED AT A BASE WITH A CONSISTENT SEMINAR PROGRAM

Area	Number of Items Compared	Survey Administration	Number of Significant Effects		
			Full Sample	No Prior Seminar	Consistent Program
Responsible Alcohol Use					
Behavior	6	Follow-up	0	0	0
Attitudes	7	Initial	3	4	2
		Follow-up	0	0	0
Air Force Policy					
Attitudes	11	Initial	1	2	2
		Follow-up	1	0	0
Knowledge	4	Initial	1	0	0
		Follow-up	1	0	0
(Sample N)			(1347)	(469)	(111)

the alcohol treatment program. Six months after the seminars, virtually no differences were found between attendees and nonattendees on any of the measures assessed. Similarly, no lasting effects were found for persons attending for the first time or for persons attending a seminar whose content was based closely on materials in the Air Force seminar manuals.

Although the seminars appear to have little impact, the results suggest that prevailing attitudes about alcohol use and Air Force alcohol policies are generally consistent with program objectives, and that there is a high level of knowledge concerning the effects of alcohol consumption covered by the seminar manuals. In contrast, the results dealing with willingness to participate in the Air Force alcohol treatment program are less consistent with prevention objectives. Only one-third of the respondents indicated they definitely would volunteer for the Air Force program if they had alcohol problems. Moreover, supervisors referred less than half the subordinates they believed had alcohol-related work impairment to the treatment program during the 6-month period covered by each survey.

Chapter 6

DISCUSSION OF FINDINGS

At this point it might be helpful to review our description of the Air Force alcohol education program, our approach to evaluating the program, and our major findings. This sets the stage for discussion in the next chapter of the policy options suggested by our study.

THE PROGRAM

The objectives of the Air Force Alcohol Abuse Control Program are to prevent and treat alcohol abuse and alcoholism among Air Force personnel. To meet these objectives, the Air Force has several prevention and rehabilitation programs aimed at various populations. These programs are provided primarily through base-level Social Actions offices, although the Air Force Surgeon General also operates ten inpatient alcohol treatment centers.

The Social Actions Seminars on drug and alcohol abuse comprise the largest component of the prevention effort, in both attendance and cost. The program provides two 4-hour seminars, one for airmen (ranks E-1 through E-3 and senior airmen) and one for supervisors (ranks E-4 or higher and officers). Everyone attends a seminar within 60 days after a permanent change of duty station (PCS), or once every 3 years on average. In addition, special drug and alcohol education is included during Basic Military Training (BMT) and often during professional military education (PME).

The objectives of this study are to evaluate the Seminar Program and recommend changes that might improve the effectiveness and efficiency of future prevention efforts. To this end, we analyzed the cost, objectives, implementation, and effects of the program.

The Seminar Program accounts for about one-sixth of Social Actions direct pay and allowances (exclusive of administration and overhead) or about $660,000 per year. In addition, attendees' time spent in the seminars during FY 1977 was worth about $4.4 million. While these costs represented only a small part of the total Air Force budget of $32 billion, the Seminar Program accounted for a significant fraction of the limited resources available for alcohol abuse control. Therefore, the most important cost issue is not the absolute level of expenditures for alcohol education, but whether they represent the most effective use of available resources among alternative activities.

We determined the formal objectives of the program by examining Air Force regulations and materials prepared to assist seminar instructors. Broadly speaking, the seminars have two main objectives related to alcohol: (1) to promote the responsible use of alcohol, and (2) to promulgate knowledge of and support for Air Force policies and programs for control of alcohol abuse.

The Airman Seminar aims at reducing the misuse of alcohol, such as frequent intoxication or driving a car after heavy drinking. It also encourages persons who have problems to seek help from treatment agencies. The seminar attempts to meet these goals by deglamorizing excessive drinking and reducing the stigma associated with alcohol treatment programs. Moreover, the seminar tries to increase knowledge about the harmful effects of excessive drinking and about Air Force policies dealing with alcohol abuse.

The Supervisor Seminar has a broader thrust, although the goals for the Airman Seminar apply to some extent. In particular, the Supervisor Seminar emphasizes the role played by supervisors in identifying subordinates who have drinking problems; it is designed to increase the rate of identification and to provide detailed information about procedures for identifying, referring, and treating persons with alcohol problems.

During our visits to Air Force bases, we found variations in seminar implementation. Instructors at some bases stressed drug abuse more than alcohol problems, particularly in the Airman Seminar. Within the alcohol segment, a few instructors emphasized the harmful effects of excessive alcohol use, but most spent relatively little time on this issue. We also found that because the Supervisor Seminars were targeted according to rank, rather than actual supervisory responsibilities, most people attending the Supervisor Seminar were not supervising others at the time.

EVALUATION APPROACH

We evaluated seminar effectiveness by means of a survey conducted at 13 bases in the 8 largest CONUS and overseas commands. The military population of these bases is representative of Air Force personnel worldwide on those demographic characteristics most related to alcohol use, and we have no reason to believe that the Seminar Programs at these bases are atypical.

During each site visit, a Rand representative randomly assigned approximately equal numbers of persons appearing for a seminar to a seminar group and a control group. Individuals in the seminar group completed a survey questionnaire administered by the representative immediately after attending the seminar. Persons in the control group completed the same survey but did not attend the seminar. A total of 1347 respondents completed the initial survey; the sample contained 649 persons scheduled for an Airman Seminar and 698 scheduled for a Supervisor Seminar. Approximately 6 to 7 months later, a Rand representative returned to administer a follow-up survey to those who completed the initial questionnaire. Ninety percent of the available sample responded at follow-up.

The survey assessed behavior, attitudes, and knowledge pertaining to the major goals of the Seminar Program: promoting responsible use of alcohol and generating support for Air Force policies and programs dealing with alcohol abuse. The questions included in the survey were drawn from Air Force seminar materials and from previous research in the alcohol field.

FINDINGS

We found no significant seminar effects on behavioral measures of alcohol problems, including rates of excessive drinking, dependence symptoms, and work impairment. Similarly, we found no effects on referrals of persons with alcohol problems, either by self-identification or by supervisors' actions.

The seminars did have immediate effects on several attitudinal measures, including items pertaining to responsible drinking and stigma. In the case of two items relating to stigma, the effect was to *increase* the stigma associated with treatment of alcoholism, contrary to seminar goals. However, in all cases these immediate effects were not large, and they did not persist over time. Moreover, most of the persons in our sample expressed attitudes consistent with seminar objectives; i.e., most persons had a responsible outlook toward drinking and did not stigmatize persons undergoing treatment for alcohol problems.

As with attitudes, we found that the seminars had immediate effects on a number of measures of information, especially knowledge of Air Force policies and procedures regarding alcohol abuse. These short-term benefits were small, however, and generally did not persist over the 6-month follow-up period. Parallel to the attitude results, most persons were already knowledgeable in areas targeted by the seminars. On most of the items assessed, knowledge levels were 80- to 90-percent correct.

INTERPRETING THE FINDINGS

There are several possible explanations for these results. First, methodological limitations of the field study might have prevented discovery of significant effects of the seminars. Second, the seminars might have the potential for significant effects but fail in practice because of inadequate local implementation. Finally, given what is known about approaches to alcohol education, we might conclude that seminar programs such as those offered by the Air Force are not likely to be effective regardless of how well they are implemented.

Study Limitations

Chapter 1 pointed out a number of methodological difficulties in evaluating alcohol education programs, some of which apply to our study. One is the impossibility of measuring all the possible effects of the seminars, particularly in the domains of knowledge and attitudes. This does not, however, appear to pose a serious problem for evaluating the ultimate seminar objective—preventing alcohol abuse—since the survey included an extensive set of abuse measures.

Another potential limitation is that we assessed changes for only a 6-month follow-up period, and there could have been longer-term effects that did not appear until *after* the 6-month point. This does not seem likely, however. Although we found that the seminars had some immediate effects on a number of measures of knowledge and attitudes, in virtually all cases the effects had dissipated by the 6-month follow-up. For the effects to have reappeared after a longer interval would require an extremely complex model of human behavior that has little support in the behavioral sciences.

One might combine these limitations and argue that the seminars could have caused changes in some unmeasured knowledge or attitude factors that ultimately affected alcohol abuse behaviors, but only after the 6-month follow-up. While such a causal sequence is possible, it seems unlikely.

Perhaps a more serious methodological issue concerns the problem of cumulative effects. It was pointed out in Chapter 5 that most persons we surveyed had been exposed to the seminars more than once and might have reached a saturation point, such that the effects of the current seminar were too small to measure. However, no significant long-term effects were observed for first-time attendees whose only prior exposure to alcohol education was in BMT.

We do not know whether the BMT instruction was sufficient to bring first-timers to the saturation point, since we did not evaluate the BMT program. But if BMT was responsible for the lack of seminar effects on first-term personnel, then saturation is relatively easy to attain, and the base-level seminars offer little potential for further improvement.

A related explanation might invoke an "osmosis" theory. Repeated seminars over a period

of years might have created a body of knowledge and a set of attitudes that, in the closely knit Air Force environment, permeate the culture and are disseminated through interaction—even to our control group who did not attend the current seminars. Although we could not test for such an effect, if this theory is valid the pertinent question is how often the seminars should be given to maintain a common core of knowledge and attitudes. Given the high levels of knowledge and the relatively positive attitudes we found, the required frequency of booster sessions might be minimal.

Studies of this type necessarily rely on self-administered questionnaires and must contend with the problem of the accuracy and validity of self-reports. While this limitation can never be completely resolved, there are two reasons why it probably does not seriously affect our results. First, results obtained in both the Rand Prevalence and Treatment studies support the validity of alcohol-related self-report measures among Air Force personnel, including the key behavioral criteria used in the present analysis (Polich and Orvis, 1979; Orvis et al., forthcoming). Second, since persons were randomly assigned to the seminar and control groups, any possible bias in self-reports should be of about the same magnitude for both groups.

Such methodological problems afflict most evaluations in the alcohol field. While we do not feel they seriously affect our findings, it is not possible to resolve the limitations completely. Therefore, we offer policy implications contingent upon the reader's acceptance of the soundness of the empirical results.

Program Implementation Problems

If methodological reasons do not explain the lack of seminar effects, the explanation may lie in limitations of the seminar program itself. The findings of our field investigations suggest one obvious possibility—that the objectives and procedures spelled out in the seminar training manuals were inadequately implemented by the local programs.

Chapter 4 reported that field investigations revealed considerable variability in seminar scope, intensity, and content at the 13 bases in our sample. While some variability is to be expected and is, in fact, encouraged to meet unique needs at each base, the lack of uniformity makes it difficult to evaluate fully all seminars with the same standardized questionnaire. Moreover, in many instances drug abuse received more emphasis than alcohol abuse, especially in the Airman Seminar. In some cases this reflected the instructor's belief that illegal drug usage was a more serious problem for the young airmen on the base in question.

Finally, there are understandable variations in the style and experience of the instructor staff. Although, in general, instructors were qualified to provide education in the field of alcoholism, some may have lacked the skill or motivation to conduct a convincing discussion.

In short, the lack of uniformity in content, emphasis, and instruction could explain the absence of lasting seminar effects when all 13 bases are considered together. Because of this, we investigated base-level seminar effects. However, virtually no significant long-term effects were found at individual bases, including the sample base at which the alcohol-education seminar was consistently faithful to the seminar manuals.

Potential Effectiveness of the Education Program

Our findings raise the question of whether the Air Force Seminar Program, or any other like it, *can* be effective, even if perfectly implemented. The research literature provides little evidence that any type of alcohol education intervention has produced long-term changes in

behavior or attitudes. Admittedly, the literature is not extensive, and most studies have methodological limitations that prevent a definitive conclusion. Nevertheless, experts in health education agree that short-term educational exercises are insufficient at best and counterproductive at worst as tools for effective prevention of substance abuse in general (including drug use and smoking).[1] Thus, previous evaluations reinforce our findings, giving little reason to believe that modest classroom-type interventions such as the Air Force seminars are likely to have major effects on alcohol-related behaviors.

Research does indicate that significant, long-term changes in knowledge can be induced. The desirability of attempting to improve alcohol-related knowledge of Air Force personnel is debatable, however, since (a) the survey suggested that they are already knowledgeable about alcohol, and (b) there is no evidence that increased knowledge about alcohol leads to behavioral change.

In short, when our results are considered in conjunction with other research, we believe the most reasonable conclusion is that the current Seminar Program is not the most effective and efficient approach for preventing alcohol abuse. A brief educational intervention can affect knowledge, but probably not attitudes and behavior. An education program designed to change behavior might require a far more intensive intervention than can be justified for a total population. We discuss alternatives to the present program in the next chapter.

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[1]Paraphrased from a communication from H. T. Blane (See Blane, 1974.)

Chapter 7

PREVENTION OPTIONS FOR THE AIR FORCE

PREVENTION STRATEGIES

To provide a context for recommending options for the Air Force prevention program, we examine several conceptual issues involved in formulating prevention strategies.

Prevention Goals

The ultimate objective of a prevention program is to reduce the risk of alcohol problems among persons who have not yet experienced them, or whose problems are not severe enough to justify a treatment intervention. Whereas all prevention programs have the same ultimate aim, there are what might be called *proximate* goals that can differ from one program to another. For example, the aim of some programs is to change particular behaviors, such as excessive drinking, driving an automobile after heavy drinking, or various types of minor disorders that might be precursors of more severe problems.

A more common proximate aim is to improve knowledge about alcohol. When this is the case, it is assumed that persons who acquire this knowledge will either stop their risk-increasing behaviors or never start them in the first place. Although such a causal sequence seems plausible, its existence has never been demonstrated in prevention research.

Another type of proximate goal is to change attitudes toward drinking. Many education programs aim at replacing favorable attitudes toward frequent drinking and intoxication with a healthier outlook, sometimes called a *responsible drinking* orientation. Programs aimed at changing attitudes are based on the assumption that such a change will lead to behavioral changes; but behavioral science has not established whether behavior follows attitudes, attitudes follow behavior, or whether both are interwined in a reciprocal causal process. Thus, even if an education program changes attitudes, it is not established that behavioral changes will follow.

A different type of proximate goal is to change the behaviors of *institutions*, with the ultimate goal of preventing individuals from having alcohol problems. Such programs are based on the assumption that controlling the availability of alcoholic beverages will affect individual behaviors by reducing excessive alcohol consumption and, thereby, lowering the risk of alcohol problems. But, short of outright prohibition (including age prohibitions), the effect of regulation on individual behavior is not well documented.

Target Populations

Another step in planning a prevention program is to identify the persons who receive the intervention. As we have pointed out, the ultimate target population consists of persons who are at risk of developing alcohol problems. If the at-risk population is substantially smaller than the total population and can be identified in some manner, it would be more efficient to deal only with this smaller group.

Given the lack of a known relationship between behavior and attitudes or knowledge, the most defensible approach to defining the at-risk population is to consider mainly behavioral criteria, such as those identified in the Rand Prevalence Study. This study showed that persons reporting frequent intoxication and warnings by doctors or others to cut down on drinking comprised a group at increased risk of experiencing serious alcohol problems. The Prevalence Study results suggest that about 7 percent of the Air Force population is in this group, in addition to the 14 percent who experience problems annually.[1] Thus, the total population at risk or with problems is about 21 percent of the Air Force.

There are at least two reasons, however, why limiting all prevention efforts to the smaller at-risk population may not be the most practical or effective approach. First, it may be difficult to identify this group without overly intrusive methods. This difficulty is a major justification for aiming an alcohol education program at the total population. Second, many heavy drinkers are reluctant to acknowledge an incipient alcohol problem, even when they have received adequate education. For this reason, some prevention efforts are aimed at medical persons, managers, or others who are in a position to recognize the early signs of alcohol problems and to take initial steps to obtain assistance.

Prevention Procedures

The most appropriate procedure for a particular prevention effort depends to some extent on the size and accessibility of the target population and the nature of the proximate goal, although there are no absolute rules. When proximate goals include behavioral or attitudinal changes, small-group sessions tend to be preferred. Small-group sessions allow face-to-face interaction between the session leader and attendees, thereby facilitating processes known to effect deeper changes (e.g., overcoming denial via confrontation techniques). Small-group approaches can also be justified when the proximate goal is to transmit complex information, and question-and-answer interaction between the student and the instructor is needed. A small-classroom approach is harder to justify when the transmitted knowledge is straightforward, or when interaction is unnecessary.

At the other extreme is the use of mass media, such as television, radio, newspapers, magazines, and direct mail. Mass media are useful primarily for programs whose proximate goals are confined to transmission of information, since no interaction is possible. When media campaigns are supported by more focused efforts, such as systematic law enforcement and counseling for offenders, they offer better possibilities of changing behavior.

Other techniques, such as large-audience lectures or assemblies, poster campaigns, or radio-telephone talk programs, lie between these extremes regarding audience size or interactiveness. Except for poster campaigns, these approaches have not been used widely for alcohol education.

Finally, changes in rules and regulations may offer greater potential for control of individual behavior. Institutional behavior can be controlled directly by rules and regulations that, in turn, directly affect individual behavior within the institution. A regulation change that affects the social clubs at a single base has a potential effect on thousands of people.

To review, a prevention program requires identification of proximate goals, definition of target populations, and choice of appropriate techniques, guided in part by the principles outlined above. At the same time, the practical limitations on the available options must be

[1]Polich and Orvis, 1979, p. 85.

considered. In particular, one must weigh the resources available to support a prevention program relative to its probable effects and to other needs for alcohol abuse control. We now explore these issues in the Air Force context.

AIR FORCE PREVENTION STRATEGIES

Together with the foregoing discussion, our empirical findings provide a basis for recommending prevention and education options for the Air Force. We shall not recommend a detailed prevention plan but shall list several possibilities that appear both useful and efficient.

An efficient program would link realistic prevention objectives to specific target populations. Expenditure of significant resources on prevention for the total population has a potentially poor return, since only the small, at-risk group can benefit. Therefore, a program for the total population can be efficient only if it is quite inexpensive or if the at-risk population improves substantially. The present study and other evaluations of alcohol education suggest that such large benefits—especially behavioral changes—are not likely to accrue to a brief educational intervention. Moreover, to increase the duration and intensity of the intervention to a point where substantial effects might occur for the at-risk population would be unfair to persons not at risk, who must endure the intervention burden without justification. Thus, the most practical alternative appears to be to design prevention programs for the total population that are low in cost.

Past research indicates that changing attitudes and behavior requires more intensive effort than does changing knowledge. Therefore, from economic and ethical points of view, such interventions should probably be restricted to at-risk persons or persons who have responsibilities for identification, such as medical staff, law enforcement persons, and supervisors. These people constitute only a small fraction of the total population.

Strengthening Substance Abuse Education in Other Education Programs

One way to transmit information efficiently to the total population would be to combine substance abuse education (including alcohol abuse education) with other education efforts so that the marginal cost of instruction in substance abuse would be small. Further, in some settings it is appropriate for the Air Force to fulfill its obligation to inform personnel about its alcohol policies and programs.

The existing BMT lesson concerning Air Force policies on substance abuse is a good example of this type of program. Since all incoming airmen must spend 6 weeks in basic training, a 2- to 4-hour lesson on substance abuse would appear to incur a minimal marginal cost. Moreover, this is one setting in which provision of information about Air Force Drug Alcohol policies is clearly justified. Substance abuse education for incoming officers is similarly justifiable.

The emphasis in these lessons should be on Air Force policies and regulations, not on persuasive communications. Factual information about the effects and physical hazards of alcohol should also be provided, but within a neutral informative context.

As in any education effort, the quality of the program will depend on the skill of the instructors. Those who give alcohol education in BMT should be trained for this purpose to help ensure transmission of appropriate materials. Social Actions staff are especially well qualified for this role, and persons nearing completion of the special Drug/Alcohol training course at Lackland could provide BMT instruction as a practicum.

Substance abuse education might also be efficiently incorporated in Professional Military Education. At present PME is supposed to include such education, but our field visits suggested that this does not happen to any great extent. Again, the marginal cost should be small, and the purpose is easily defensible. Indeed, since the goal of PME is to teach people how to become supervisors, a strong emphasis on the important role played by supervisors in the identification process could well be more effective than the present Supervisor Seminars. Whereas the current Supervisor Seminars are not part of PME and include many nonsupervisory personnel, integration of alcohol education in PME courses might enhance the legitimacy and importance of supervisors' responsibilities for identifying persons with alcohol problems. Social Actions staff in local units could undoubtedly provide substance abuse education in PME if they were relieved of current seminar obligations.

Other substance abuse education is needed beyond BMT and PME. For example, persons new to a base need information about substance abuse conditions and policies unique to the local situation. This information could be systematically supplied within the 2-week orientation program (INTRO) offered to new arrivals. Brief sessions that have a low-key, information-only tone could be provided by Social Actions instructors. At this time, also, incoming persons could be tested on their knowledge of substance abuse and Air Force policies to control it as a means of reinforcing their awareness in these areas.

We emphasize that it is not established that these approaches will be more effective in transmitting knowledge than the current seminar program. Their effectiveness cannot be known until the programs are developed, implemented, and evaluated. We assert, however, that these methods will be less costly than the current program, and there is no reason to believe they will be less effective.

Programs for the At-Risk Population

One problem besetting programs for persons at risk is how to identify them. As we have noted, Air Force personnel seem reluctant to identify colleagues who have alcohol problems. The closeness and interdependence of military life may reinforce this reluctance. Thus, more persons enter the Air Force treatment program because of apprehension by the Security Police for alcohol-related incidents (such as DWIs) than from any other source.

The findings in Table 5.7 suggest that supervisors refer less than two-fifths of the subordinates they believe to have alcohol-related work impairment to the Air Force treatment program. Perhaps a more formal recognition of the supervisor's role in the identification process, e.g., explicit consideration of such actions in the supervisor rating process, would enhance supervisors' feelings of responsibility and increase referral rates. Similarly, although a substantial number of persons report alcohol-related injuries and illnesses involving medical care, medical staff rarely refer such persons to Social Actions.[2] Again, increasing the formal responsibility of medical persons for identifying the at-risk population might increase referrals.

The Air Force treatment program has an education component, the Alcohol Awareness Seminar. In evaluating Air Force treatment procedures, Rand found this component to be highly cost-effective.[3] This suggests that if supervisors or medical staff increased referrals, many at-risk persons could be assigned to attend the Awareness Seminar, rather than to more

[2]Polich and Orvis, 1979; Orvis et al. (forthcoming).
[3]Orvis et al. (forthcoming).

intensive treatment. Moreover, the willingness of medical and supervisory staff to make referrals might be enhanced if this alternative were clearly available.

Other Possibilities

H. T. Blane has made several suggestions in connection with the Air Force program (personal communication), which we summarize here. Our purpose is not so much to recommend them explicitly as to include them as worthy of investigation for possible implementation.

He notes that research and evaluation in the United States, England, and Scandinavia has demonstrated that it is possible to design an effective program for reducing the rate of driving under the influence of alcohol. Such a program has several interrelated components: a set of clear regulations, sanctions for their violation, rapid and fair application of the sanctions, an active program of police surveillance, and procedures for dissemination of information about the program. Two elements are the key to program effectiveness—knowledge of the regulations and their routine enforcement.

Information about the program could be disseminated during BMT or INTRO sessions, via mass media, and in driver-training classes. Roadside breath-testing could routinely be administered when and where DWI behavior usually occurs. The penalty for the first offense could be a heavy fine; subsequent offenses would elicit stronger sanctions, and, in fact, the schedule of fines could be constructed so that the program pays for itself.

Club managers and others who sell or serve alcoholic beverages could be trained to recognize persons who are intoxicated or have alcohol problems, and to use improved serving practices, e.g., not pushing drinks and slowing down rapid drinkers. The purpose of this training should be to reduce intoxication and alcohol problems, not to turn the trainee into a counselor or referral agent.

RECOMMENDATIONS

In sum, we recommend the following:

- Replacement of the substance abuse seminars with strengthened substance abuse education in BMT, PME, programs for incoming officers, and base-level orientation programs. These sessions would also emphasize Air Force programs and policies regarding substance abuse.
- Strengthening the responsibility of supervisors and medical persons to identify those with alcohol problems for education or treatment/rehabilitation.
- Expansion of the Alcohol Awareness Seminar for persons with less-serious or incipient alcohol problems.
- Consideration of other steps to reduce the frequency of driving under the influence of alcohol and of other forms of alcohol misuse.

In closing, we note that a recurrent theme in this discussion has been the lack of scientific knowledge for designing prevention programs that are both effective and efficient. As important as prevention may be, we still have an incomplete understanding of how to alter deeply engrained drinking behaviors and attitudes. This does not mean that prevention efforts should be abandoned; the rate of alcohol problems in the Air Force, as in the civilian sector, is serious enough to warrant continued attention to prevention. It must be recognized, however, that the

prevention field is still in an experimental stage, and even the best-conceived programs may fall short of their intended goals. Thus, it is important that the Air Force continue to emphasize program evaluation; only through evaluation can we discover what works and does not work. Such knowledge is central in the step-by-step process of developing a truly effective program.

Appendix A

AIR FORCE SUBSTANCE ABUSE EDUCATION SURVEY

The Rand Corporation
Santa Monica, California

PURPOSE OF THE STUDY

The Rand Corporation is conducting a scientific study of the Air Force substance abuse education program. The purpose of the study is to evaluate and improve Air Force programs for prevention of alcohol abuse. Your participation in this survey will help Rand and the Air Force accomplish these goals.

Any answers you give will be kept strictly confidential and will be used only by Rand for research purposes. No individual information will be given to the Air Force or to anyone outside the Rand research team. Rand is a civilian corporation and is independent of the Air Force.

PRIVACY STATEMENT

In accordance with paragraph 30, AFR 12-35, Air Force Privacy Program, the following information about this survey is provided:

a. Authority. 10 U.S.C., 8012, Secretary of the Air Force: Powers and Duties, Delegation by.

b. Principal purpose. The survey is being conducted to collect opinions and behavioral information relating to current and future Air Force policies and programs.

c. Routine use. The survey data will be converted to statistical information for use by The Rand Corporation and the Air Force in evaluating and planning programs and policies.

d. Participation in this survey is voluntary.

e. No adverse action of any kind may be taken against any individual who elects not to participate in this survey.

USAF SCN 77-78

FORM B

INSTRUCTIONS

SOME OF THE QUESTIONS BELOW ARE FOLLOWED BY A LIST OF NUMBERED RESPONSES. FOR THESE QUESTIONS CIRCLE THE NUMBER NEXT TO THE ONE ANSWER THAT COMES CLOSEST TO YOUR EXPERIENCE OR OPINION.

FOR THE OTHER QUESTIONS, ENTER THE INFORMATION ASKED FOR.

⑤ 1. Date (use numbers only) ____ ____ ____
year (8-9) month (10-11) day (12-13)

(14-15) 2. Circle the number below that corresponds to the name of your current major command.

1	AAC	14	HQ COMD SPEC ACTY
2	ACIC	15	HQ USAF
3	ADC	16	HQ USAF FLD EXT
4	AFAFC	17	MAC
5	AFCS	18	PACAF
6	AFDSDC	19	SAC
7	AFLC	20	TAC
8	AFRES	21	USAFA
9	AFSC	22	USAFE
10	ARPC	23	USAF SO
11	ATC	24	USAFSS
12	AU	25	Other
13	HQ COMD		

If you circled 25 ("other") write in name _____

(16-17) 3. Circle the number below that corresponds to the base to which you are assigned.

1	Bentwaters	7	March	12	Scott
2	Clark	8	Mather	13	Seymour-Johnson
3	Hahn	9	Minot	14	Sheppard
4	Lackland	10	Nellis	15	Travis
5	Lakenheath	11	Osan	16	Wright-Patterson
6	Little Rock			17	Other

If you circled 17 ("other"), write in name _____

4. What is your primary AFSC? _ _ _ _ _ - _ _
   Number (18-22) Letter (23)

5. What is your duty AFSC? _ _ _ _ _ - _ _
   Number (24-28) Letter (29)

6. Total time at present base or installation (on current tour only):

   years (30-31) months (32-33) weeks (34-35)

7. Total time in duty Air Force Specialty (add the times for all jobs, in all units, on all tours in duty AFS jobs):

   years ( ) months ( ) weeks ( )

8. How much total active military service (TAFMS) do you have? (Count all terms of service.)

   years ( ) months ( ) weeks ( )

9. Name of unit or squadron to which assigned (do not include name of base):

   _____ ( )

10. Title of your present job or position (duty assignment). Do not give just the title of your Air Force Specialty unless that is the only name your job has.

    _____

11. What base were you assigned to before this one?

    _____ ( )

12. How long were you stationed there?

    years ( ) months ( ) weeks ( )

13. (61-62) What is your present pay grade?

Officer/Officer Trainee		Enlisted		Other	
1	O-6	9	E-9	18	Other
2	O-5	10	E-8		
3	O-4	11	E-7		
4	O-3	12	E-6		
5	O-2	13	E-5		
6	O-1	14	E-4		
7	W-1 thru W-4	15	E-3		
8	Officer Trainee	16	E-2		
		17	E-1		

If you circled 18 ("other"), please specify _____
Letter(s) and Number

14. (63) Circle 1 if you are male or 2 if you are female.

1 Male

2 Female

15. Date of birth (use numbers only) _____ ___ ____
month (64-65) day (66-67) year (68-69)

16. (70) Which one of the following do you consider yourself. (Circle one number.)

1 American Indian

2 Spanish background (Mexican American, Puerto Rican, Cuban, etc.)

3 White (but not Spanish background)

4 Black

5 Oriental American

6 Other

If you circled 6 ("other"), please specify _____

17. What is your highest level of education *now*?

1 No high school

2 Some high school

3 GED certificate or high school equivalency

4 High school graduate

5 One or two years of college or vocational school (include Associate Degree)

6 More than two years of college

7 College degree (BA, BS, or equivalent)

8 Graduate study but no graduate degree

9 Master's degree

0 Doctor's degree (Ph.D., M.D., L.L.B., Ed.D., etc.)

18. How much do you weigh? _____ pounds

19. What is your marital status?

1 Married

2 Separated

3 Divorced

4 Widowed

5 Never married

20. Is your spouse with you at your present duty station?

1 Yes, my spouse is with me

2 No, my spouse is not with me

3 I am not currently *married*

21. What type of quarters do you have at present?

1 On base with dependents

2 On base barracks or nondependent quarters

3 Off base government housing

4 Off base civilian housing

PAGE

22. How many overseas assignments of 9 to 12 or longer have you had since you have been in the Air Force? (Include Alaska and Hawaii.) Count your present tour if you are now overseas.

(Enter 0 if none) _____ number of overseas assignments

(6) 23. In the past 6 months, how many times have you been on TDY?

(Enter 0 if none) _____ number of times on TDY

24. In the past 6 months, how many days total have you been on TDY?

(Enter 0 if none) _____ total number of days on TDY

25. Are you currently serving in your first term of enlistment?

1 Yes

2 No

3 Does not apply, I am an officer

26. Do you intend to reenlist when your present term of service is completed?

1 Definitely yes

2 Probably yes

3 Undecided

4 Probably no

5 Definitely no

6 Will retire at end of present term of service

7 Does not apply, I am An officer

27. Do you expect to stay in the Air Force until retirement?

1 Definitely yes

2 Probably yes

3 Undecided

4 Probably not

5 Definitely not

Here are some statements people have made about drinking. Please circle for each statement the number corresponding to whether *you* strongly agree, agree, are neutral, disagree, or strongly disagree.

		Strongly Agree	Agree	Neutral or No Opinion	Disagree	Strongly Disagree	*Please do not mark in this column.*
28.	Liquor is more expensive in civilian life than in the Air Force.	1	2	3	4	5	
29.	There is really no cure for alcoholism.	1	2	3	4	5	
30.	*Entering an* Air Force alcohol abuse program will permanently damage your career.	1	2	3	4	5	
31.	Alcoholism is basically a sign of moral weakness.	1	2	3	4	5	
32.	A party isn't a party unless alcoholic drinks are served.	1	2	3	4	5	
33.	*Many of the* people in my unit think there is something wrong with a person who doesn't drink.	1	2	3	4	5	
34.	Even a moderate amount of drinking damages the body.	1	2	3	4	5	
35.	If an alcoholic expects to get better, he or she must stop drinking entirely.	1	2	3	4	5	
36.	The Air Force tries to help those who have a drinking problem.	1	2	3	4	5	
37.	It's all right to get drunk once in a while as long as it doesn't get to be a habit.	1	2	3	4	5	
38.	It's a good thing that the Air Force has started a policy to deglamorize alcohol.	1	2	3	4	5	

		Strongly Agree	Agree	Neutral or No Opinion	Disagree	Strongly Disagree	Please do not mark in this column.
39.	If Air Force personnel enter into the Air Force program for alcohol abuse, it will reflect unfavorably on their units.	1	2	3	4	5	
40.	It's all right to have a drink or two at lunch on duty days.	1	2	3	4	5	
41.	Drinking together helps keep up the spirit and morale of a unit.	1	2	3	4	5	
42.	People who don't drink at all are usually not much fun to be around.	1	2	3	4	5	(30)
43.	Alcohol should be available at Air Force social functions.	1	2	3	4	5	(31)
44.	It is worse for a woman to get drunk than for a man.	1	2	3	4	5	(32)
45.	If someone I'm with wants to drink too much, I should try to stop him or her.	1	2	3	4	5	(33)
46.	Air Force personnel who have been successfully treated for alcoholism should receive the same assignments and promotions as anyone else.	1	2	3	4	5	(34)
47.	Every military man should know how to hold his liquor.	1	2	3	4	5	(35)
48.	The Air Force should be concerned about a person's drinking only if it interferes with his or her performance of duty.	1	2	3	4	5	(36)

Please indicate your belief in each of the statements below by circling 1 for true or 2 for false.

		TRUE	FALSE	*Please do not mark in this column.*
49.	Alcohol is a drug.	1	2	(37)
50.	Forgetting what happened while drinking is a sign of alcoholism.	1	2	(38)
51.	Drinking too much liquor quickly can kill a person.	1	2	(39)
52.	One can of beer has about the same amount of alcohol as one shot of whiskey.	1	2	(40)
53.	A person who stays drunk for several days at a time is likely to be an alcoholic.	1	2	(41)
54.	The same quantity of alcohol will affect everyone about the same.	1	2	(42)
55.	Drinking black coffee and dousing your head with cold water will help you sober up quickly.	1	2	(43)
56.	If you eat food while you drink liquor, the liquor will have less effect on you.	1	2	(44)
57.	Alcohol can damage your brain.	1	2	(45)
58.	The best cure for a hangover is a drink.	1	2	(46)
59.	As long as you eat a balanced diet, drinking won't damage your body.	1	2	(47)
60.	A person can become physically addicted to alcohol.	1	2	(48)
61.	If you stick to drinking beer, you won't become an alcoholic.	1	2	(49)
62.	Most people can drink regularly for years without becoming an alcoholic.	1	2	(50)
63.	It is the policy of my command that a person who gets a DWI (Driving While Intoxicated) must have some treatment for problem drinking.	1	2	(51)
64.	If you turn yourself in to the Air Force for drinking problems, disciplinary action will be taken against you.	1	2	(52)
65.	It is Air Force policy that alcohol abuse information is removed from the person's official record after completion of rehabilitation.	1	2	(53)
66.	A person being treated for alcohol abuse in an Air Force program can't work in a high risk assignment.	1	2	(54)

		TRUE	FALSE	*Please do not mark in this column.*
67.	A person is not eligible to reenlist while he or she is being treated for alcohol abuse in an Air Force program.	1	2	(55)
68.	It is Air Force policy to discharge alcoholics.	1	2	(56)
69.	A person's body gets rid of alcohol mostly through urination.	1	2	(57)
70.	Most people can drink two cans of beer without getting drunk.	1	2	(58)
71.	Drinking the first thing in the morning is a sign of alcoholism.	1	2	(59)
72.	Men are more likely than women to become alcoholics.	1	2	(60)
73.	Most alcoholics end up on skid row.	1	2	(61)

HERE ARE SOME QUESTIONS ABOUT YOUR OWN DRINKING.

74. How long has it been since your last drink of beer, wine, or hard liquor? (62)

1 Today

2 1-7 days ago

3 8-14 days ago

4 15-30 days ago

5 1 month ago (31-59 days ago)

6 2-3 months ago (60-119 days ago)

7 4-6 months ago

8 7-12 months ago

9 More than one year ago

0 Never drank any beer, wine, or hard liquor

SKIP TO PAGE 28, QUESTION 152 IF YOU NEVER DRANK ANY BEER, WINE, OR HARD LIQUOR.

People drink wine, beer, or whiskey for different reasons. Here are some statements people have made about why they drink. On those days when you do drink, *how often do you drink* for these reasons?
IF YOU DON'T DRINK NOW, ANSWER IN TERMS OF THE PAST WHEN YOU WERE DRINKING.

		Most of the time	Some of the time	Rarely or Never	*Please do not mark in this column.*
75.	I drink to be sociable.	1	2	3	
76.	I drink to forget my worries.	1	2	3	
77.	I drink to relax.	1	2	3	
78.	I drink because I like the taste.	1	2	3	
79.	I drink when I am depressed.	1	2	3	
80.	I drink when I am tense and nervous.	1	2	3	
81.	I drink when I am bored and have nothing to do.	1	2	3	
82.	I drink when I am thirsty.	1	2	3	
83.	I drink to increase my self confidence.	1	2	3	

84. (72) Do you drink alone or with others?

1 Always drink alone

2 Usually alone

3 Usually with others

4 Always with others

85. (73) When you drink do you also eat something?

1 Always eat while drinking

2 Usually eat while drinking

3 Usually do not eat while drinking

4 Never eat while drinking

86. (74) How often do you have a drink at lunch on duty days?

1 Every day

2 3-6 times a week

3 Once or twice a week

4 1-3 times a month

5 Less than once a month

6 Never

87. What is the *most* you would drink at a party when you know you will be off duty for a day or more? A drink is defined as one can or bottle of beer, one 4-ounce glass of wine, or one shot (or ounce) of hard liquor.

(Enter 0 if none) _____
number of drinks
(75-77)

88. What is the *most* you would drink at a party when you know you will be on duty the next day? A drink is defined as above.

(Enter 0 if none) _____
number of drinks
(78-80)

⑦ 89. (8-9) If you had just participated in a happy hour or cocktail party that lasted two hours, how much could you drink and feel safe driving an automobile? A drink is defined as above.

1 0 drinks

2 1 drink (a shot, regular mixed drink, a beer, a glass of wine)

3 2 drinks

4 3 drinks

5 4 drinks

6 5 drinks

7 6 drinks

8 7 drinks

9 8 drinks

10 9 drinks

11 10 drinks

12 more than 10 drinks

90. (10) During the *past 30 days*, how often did you drink beer?

1 Every day

2 Nearly every day

3 3-4 times a week

4 Once or twice a week

5 2-3 times during the past 30 days

6 Once during the past 30 days

7 Didn't drink any beer in the past 30 days
(SKIP TO QUESTION 93)

91. (11) How much beer did you drink on a typical day (in which you drank beer) during the past 30 days?

1 1 can (or bottle)

2 2 cans

3 3 cans (one quart)

4 4 cans

5 5 cans (2 quarts)

6 6 cans

7 7 cans

8 8-11 cans (3 or 4 quarts)

9 12-17 cans (5 or 6 quarts)

0 18 or more cans (7 or more quarts)

92. (12) How large are the cans or bottles that you usually drink?

1 Standard 12-oz cans or bottles

2 16-oz (half-quart) cans or bottles

3 32-oz (full quart) cans or bottles

4 Less than 12-oz cans or bottles

5 More than 32-oz cans or bottles

6 Don't drink cans or bottles of beer

93. (13) During the *past 30 days*, how often did you drink wine?

1 Every day

2 Nearly every day

3 3-4 times a week

4 Once or twice a week

5 2-3 times during the past 30 days

6 Once during the past 30 days

7 Didn't drink any wine in the past 30 days
(SKIP TO QUESTION 96)

94. (14) How much wine did you drink on a typical day (*in which you drank wine*) during the past 30 days?

1 1 wine glass (4 oz.)

2 2 wine glasses

3 3 wine glasses (12 oz.--about half a fifth or bottle)

4 4 wine glasses

5 5 wine glasses

6 6 wine glasses (24 oz.--about one fifth or bottle)

7 7 wine glasses

8 8-11 wine glasses

9 12 wine glasses (48 oz.--about two fifths)

0 More than 12 wine glasses or more than two fifths

95. (15) During this period, did you usually drink a regular wine or a fortified wine such as sherry, vermouth, port, or Dubonnet?

1 A regular wine

2 A fortified wine (like sherry, vermouth, port, or Dubonnet)

96. (16) During the *past 30 days*, how often did you drink hard liquor?

1 Every day

2 Nearly every day

3 *3-4 times a week*

4 Once or twice a week

5 2-3 times during the past 30 days

6 Once during the past 30 days

7 Didn't drink any hard liquor during the past 30 days (SKIP TO QUESTION 100)

How much hard liquor did you drink in a typical day (in which you drank hard liquor) during the past 30 days?

MARK EITHER ANSWER 97 (Number of drinks) OR ANSWER 98 (Number of ounces), WHICHEVER IS EASIER FOR YOU TO ESTIMATE.

97. (17-18) Number of Drinks		OR	98. (19-20) Number of ounces	
1	1 drink		1	1 ounce
2	2 drinks		2	2 ounces
3	3 drinks		3	3 ounces
4	4 drinks		4	4 ounces
5	5 drinks		5	5 ounces
6	6 drinks		6	6 ounces
7	7 drinks		7	7 ounces
8	8-10 drinks		8	8 ounces (half pint)
9	11-15 drinks		9	9-10 ounces
10	16-20 drinks		10	11-14 *ounces*
11	21 or more drinks		11	15-16 ounces (one pint)
			12	17-24 ounces
			13	25-32 ounces (one fifth to one quart)
			14	More than 32 ounces (more than one quart

99. (21) IF YOU ANSWERED IN DRINKS: About how many ounces of hard liquor are there in your average drink?

1 One ounce (one shot)

2 1.25 ounces

3 1.5 ounces (one jigger)

4 2 ounces

5 3 ounces

6 4 ounces

7 5 or more ounces

NOW THINK ABOUT THE PERIOD OF THE PAST 6 MONTHS--FROM TODAY BACK TO 6 MONTHS AGO . . .

100. During the past 6 months, how often did you have 5 or more cans (22) of beer in a single day (3 quarts or more)?

1 Every day or nearly every day

2 3-4 times a week

3 Once or twice a week

4 1-3 times a month

5 2-5 times in the past 6 months

6 Once in the past 6 months

7 Happened over 6 months ago

8 Never happened

101. During the past 6 months, how often did you have 5 or more glasses (23) of wine in a single day (more than a fifth)?

1 Every day or nearly every day

2 3-4 times a week

3 Once or twice a week

4 1-3 times a month

5 2-5 times in the past 6 months

6 Once in the past 6 months

7 Happened over 6 months ago

8 Never happened

102. (25) During the past 6 months, how often did you have *5 or more drinks* of hard liquor in a single day (a half pint or more)?

1 Every day or nearly every day

2 3-4 times a week

3 Once or twice a week

4 1-3 times a month

5 2-5 times in the past 6 months

6 Once in the past 6 months

7 Happened over 6 months ago

8 Never happened

103. (25) About how many times in the *past 6 months* have you been high on alcohol for *more than 24 hours in a row*?

1 5 or more times

2 4 times

3 3 times

4 2 times

5 Once

6 Never in the past 6 months, but sometime before that

7 Never in my life

Listed below are a number of things connected with drinking that sometimes affect people on their duty days. Please indicate those things that have happened to you, and if they have happened in the past 6 months, how many days in the past 6 months.

104. (26) I was on duty, but did not work at my normal level of performance because of drinking or a hangover.

1 Never happened to me on a duty day

2 Has happened, but not in past 6 months

Has happened in past 6 months:

3 Happened on 1 duty day

4 2 duty days

5 3 duty days

6 4-6 duty days

7 7-11 duty days

8 12-20 duty days

9 21-39 duty days

0 40 duty days or more

105. (27) I was late to work or left early because of drinking or a hangover.

1 Never happened to me on a duty day

2 Has happened, but not in past 6 months

Has happened in past 6 months:

3 Happened on 1 duty day

4 2 duty days

5 3 duty days

6 4-6 duty days

7 7-11 duty days

8 12-20 duty days

9 21-39 duty days

0 40 duty days or more

106. I was off-duty because of drinking, a hangover, or illness caused by drinking.

1 Never happened to me on a duty day

2 Has happened, but not in past 6 months

3 Happened on 1 duty day

4 2 duty days

5 3 duty days

6 4-6 duty days

7 7-11 duty days

8 12-20 duty days

9 21-39 duty days

0 40 duty days or more

107. I had a drink 2 hours or less before going on duty.

1 Never happened to me on a duty day

2 Has happened, but not in past 6 months

3 Happened on 1 duty day

4 2 duty days

5 3 duty days

6 4-6 duty days

7 7-11 duty days

8 12-20 duty days

9 21-39 duty days

0 40 duty days or more

108. I was sign from drinking while on duty.

1 Never happened to me on a duty day

2 Has happened, but not in past 6 months

[illegible]

3 Happened on 1 duty day

4 2 duty days

5 3 duty days

6 4-6 duty days

7 7-11 duty days

8 12-20 duty days

9 21-39 duty days

0 40 duty days or more

109. I drank on duty.

1 Never happened to me on a duty day

2 Has happened, but not in the past 6 months

[illegible]

3 Happened on 1 duty day

4 2 duty days

5 3 duty days

6 4-6 duty days

7 7-11 duty days

8 12-20 duty days

9 21-39 duty days

0 40 duty days or more

110. (32) If you ever worked below your normal level of performance because of drinking or a hangover, how would you rate your performance the last time this happened?

1 Never worked below my normal level of performance because of drinking or a hangover

2 Worked close to 90% of my normal level of performance

3 Worked close to 80%

4 Worked close to 70%

5 Worked close to 60%

6 Worked close to 50%

7 Worked close to 40%

8 Worked close to 30%

9 Worked close to 20%

0 Worked close to 10%

111. (33) If you were late to work or left early because of drinking or a hangover, how long were you at work the last time this happened?

1 Never was late to work or left early because of drinking or a hangover

2 Worked about 3/4 day

3 Worked about 1/2 day

4 Worked about 1/4 day

Below is a list of experiences that people have reported in connection with drinking. For each experience, please circle *one answer* to indicate how often, if at all, you had this experience.

Please take your time on this, so your answers will be as accurate as possible.

		Happened 3 or more times in the past 6 months	Happened twice in the past 6 months	Happened once in the past 6 months	Happened but not in the past 6 months	Never Happened
112.	I had an illness connected with drinking which kept me from duty for a week or longer.	1	2	3	4	5
113.	My drinking may have hurt my chances for a promotion or a better assignment.	1	2	3	4	5
114.	I got a lower score on my efficiency report or performance rating because of drinking.	1	2	3	4	5
115.	I received judicial or non-judicial punishment because of my drinking.	1	2	3	4	5
116.	A physician said I should cut down on drinking.	1	2	3	4	5
117.	My spouse said I should cut down on drinking.	1	2	3	4	5
118.	People I work with said I should cut down on drinking.	1	2	3	4	5
119.	My drinking caused me to lose a friend.	1	2	3	4	5
120.	I stayed intoxicated for several days at a time.	1	2	3	4	5
121.	I was warned about my drinking, but not arrested, by a policeman (civilian or military).	1	2	3	4	5

		Happened 3 or more times in the past 6 months	Happened twice in the past 6 months	Happened once in the past 6 months	Happened but not in the past 6 months	Never Happened	Please do not mark in this column.
122.	I was arrested for drinking and driving.	1	2	3	4	5	(44)
123.	I was arrested for drinking not related to driving.	1	2	3	4	5	(45)
124.	I spent time in jail because of my drinking.	1	2	3	4	5	(46)
125.	My drinking contributed to my getting hurt in an accident.	1	2	3	4	5	(47)
126.	My drinking contributed to an accident where others were hurt or property was damaged.	1	2	3	4	5	(48)
127.	My spouse threatened to leave me because of my drinking.	1	2	3	4	5	(49)
128.	My spouse left me because of my drinking.	1	2	3	4	5	

129. If you've ever spent time in jail because of your drinking, how many days were you in jail the last time this happened?

(Enter 0 if none) _____
number of days in jail

130. Has your drinking ever contributed to damage or loss of Air Force property?

1 No

2 Yes

If yes,

(a) Briefly describe the property damaged or lost

_____

_____

(b) Estimate the cost of repair or replacement of this property

_____ dollars
(50-62)

Below are some more experiences that people report in connection with drinking. For each of these experiences, please circle *one answer* to indicate how often per week or month you had this experience, if at all, in the past 6 months.

I had this experience:

		Every day or nearly every day	3-4 times a week	Once or twice a week	1-3 times a month	2-5 times in the past 6 mos.	Once in the past 6 mos.	Happened over 6 mos. ago	Never happened	*Please do not mark in this column*
131.	I got high on alcohol.	1	2	3	4	5	6	7	8	(63)
132.	I got into a fight where I hit someone when I was drinking.	1	2	3	4	5	6	7	8	(64)
133.	I awakened the next day not being able to remember some of the things I had done while drinking.	1	2	3	4	5	6	7	8	( )
134.	I skipped regular meals while I was drinking.	1	2	3	4	5	6	7	8	( )
135.	I tossed down several drinks fast, to get a quicker effect from them.	1	2	3	4	5	6	7	8	( )
136.	I was drunk.	1	2	3	4	5	6	7	8	( )
137.	I took a few quick drinks before going to a party to make sure I had enough.	1	2	3	4	5	6	7	8	( )
138.	I took a drink the first thing when I got up in the morning.	1	2	3	4	5	6	7	8	

		Every day or nearly every day	3-4 times a week	Once or twice a week	1-3 times a month	2-5 times in the past 6 mos.	Once in the past 6 mos.	Happened over 6 mos. ago	Never happened	Please do not mark in this column.
139.	My hands shook a lot the morning after drinking.	1	2	3	4	5	6	7	8	(71)
140.	I could not stop drinking before becoming intoxicated.	1	2	3	4	5	6	7	8	(72)
141.	I was sick because of drinking (nausea, vomiting, severe headache, etc.)	1	2	3	4	5	6	7	8	(73)
142.	I had the "shakes" because of drinking.	1	2	3	4	5	6	7	8	(74)
143.	I drove a car fast after I had 5 or more drinks in a two hour period.	1	2	3	4	5	6	7	8	

144. Have you ever been in a hospital or infirmary for an illness or accident connected with drinking. If yes, how many days altogether were you hospitalized in the past 6 months?

1 Has never happened

2 Happened but not in past 6 months

Happened in past 6 months

3 1 day in a hospital connected with drinking

4 2 days

5 3 days

6 4-6 days

7 7-13 days

8 14-26 days

9 27 days or more

145. (77) Have you ever seen a physician as an outpatient for an illness or accident connected with drinking? If yes, how many visits connected with drinking did you make in the past 6 months?

1 Never have seen a physician for illness or accident connected with drinking

2 Have visited a physician but not in past 6 months

Have visited a physician in past 6 months:

3 1 visit to a physician connected with drinking

4 2 visits

5 3 visits

6 4-5 visits

7 6-10 visits

8 11-15 visits

9 16 or more visits

If you knew *you* had problems because of drinking, what would you do?

If you have *actually done* one of these things, please circle 1 for "Have done this."

		Have done this	Definitely would do this	Probably would do this	Not sure	Probably would not do this	Definitely would not do this	
146.	Make a serious effort to control my drinking.	1	2	3	4	5	6	(78)
147.	Discuss the problem with a civilian who could help me.	1	2	3	4	5	6	(79)
148.	Ask my immediate supervisor to advise me.	1	2	3	4	5	6	(80)
149.	Ask another Air Force person who could help me.	1	2	3	4	5	6	
150.	Volunteer for the Air Force treatment program.	1	2	3	4	5	6	
151.	Volunteer for a civilian treatment program.	1	2	3	4	5	6	

Suppose someone in your unit had a drinking problem. You have tried several times to get this person to cut down, but he or she keeps on drinking. In fact, his or her work is falling off because of drinking. Please indicate whether you would do each of the following.

If you have *actually done* one or more of the things listed below, please circle 1 for "Have done this."

	Have done this	Definitely would do this	Probably would do this	Not sure	Probably would not do this	Definitely would not do this	
152. Tell my supervisor.	1	2	3	4	5	6	
153. Tell someone else in the Air Force who could help this person.	1	2	3	4	5	6	
154. Tell a civilian who could help this person.	1	2	3	4	5	6	
155. Encourage the person to enter the Air Force treatment program.	1	2	3	4	5	6	
156. Encourage the person to enter a civilian treatment program.	1	2	3	4	5	6	

PLEASE SKIP TO QUESTION 159 UNLESS YOU ARE A SUPERVISOR.

157. Threaten disciplinary action if the person does not volunteer for treatment.	1	2	3	4	5	6	
158. Discuss the situation with the person and start to document his or her substandard performance.	1	2	3	4	5	6	

159. About how many months ago did you last attend an Air Force education program about alcohol abuse? (Enter 0 if you *never* attended one.)

_____ months (18-19)

Please indicate below your reactions to the *last* Air Force education program about alcohol abuse you attended.

IF YOU HAVE NEVER ATTENDED ONE, SKIP TO QUESTION 172.

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
160.	It increased my knowledge of the effects of alcohol.	1	2	3	4	5	(20)
161.	It was a waste of time.	1	2	3	4	5	(21)
162.	It increased my understanding of Air Force policies on alcohol abuse.	1	2	3	4	5	(22)
163.	It increased my understanding of Air Force programs for prevention and treatment of alcohol abuse.	1	2	3	4	5	(23)
164.	It was an invasion of privacy.	1	2	3	4	5	(24)
165.	It made me more aware of the importance of using alcohol in a responsible way.	1	2	3	4	5	(25)
166.	Some of the information was wrong.	1	2	3	4	5	(26)
167.	I will change my drinking habits because of it.	1	2	3	4	5	(27)
168.	It only told me things that I already knew.	1	2	3	4	5	(28)
169.	It overplayed the bad aspects of drinking.	1	2	3	4	5	(29)
170.	It left out some things I would have liked to know.	1	2	3	4	5	(30)
171.	It made me more aware of my responsibilities as a supervisor for implementing the Air Force programs for prevention and treatment of alcohol abuse.	1	2	3	4	5	(31)

172. How many people (in total) have you supervised during the past 6 months (people for whom you prepared an OER or APR)?

(Enter 0 if none) _____
number
(32-33)

IF YOU HAVE BEEN A SUPERVISOR DURING THE PAST 6 MONTHS (IF YOU HAD AT LEAST ONE PERSON WHOSE OER OR APR YOU PREPARED), CONTINUE.

IF YOU HAVE NOT BEEN A SUPERVISOR DURING THE PAST 6 MONTHS, YOU ARE FINISHED.

ANSWER THE FOLLOWING QUESTIONS ABOUT THE PEOPLE YOU HAVE SUPERVISED IN THE PAST 6 MONTHS (PEOPLE WHOSE OER's or APR's YOU PREPARED).

173. *In your opinion, how many of the people you supervised during the past 6 months* had a drinking problem that affected their work?

(Enter 0 if none) _____ number (34-35)

174. How many of the people you supervised *during the past 6 months* did you tell to cut down on their drinking?

(Enter 0 if none) _____ number (36-37)

175. How many of the people you supervised *during the past 6 months* did you refer to the Air Force treatment program for alcohol abuse?

(Enter 0 if none) _____ number (38-39)

176. How many of the people you supervised *during the past 6 months* did you refer to civilian treatment for alcohol abuse?

(Enter 0 if none) _____ number (40-41)

177. How many of the people you supervised *during the past 6 months* did you give lower performance ratings because of alcohol abuse that affected their work?

(Enter 0 if none) _____ number (42-43)

178. For how many of the people you supervised *during the past 6 months* did you recommend disciplinary action because of alcohol abuse?

(Enter 0 if none) _____ number (44-45)

179. (+6) Which of the people below can sign off the entry of an Air Force person into the Air Force program for problem drinkers?

1 base medical officer

2 security police

3 squadron commander

4 first sergeant

5 immediate supervisor

6 social actions personnel

7 chaplain

180. (+7) Which of the people below can formally identify an Air Force person as an alcoholic?

1 base medical officer

2 security police

3 squadron commander

4 first sergeant

5 immediate supervisor

6 social actions personnel

7 chaplain

AD-A107 654 RAND CORP SANTA MONICA CA F/G 5/11
THE EFFECTIVENESS OF AIR FORCE ALCOHOL EDUCATION SEMINARS.(U)
SEP 81 P CARPENTER-HUFFMAN, B R ORVIS F49620-77-C-0023
UNCLASSIFIED RAND/R-2727-AF NL

People who enter the Air Force program for treatment of problem drinkers will: (Circle *one* number for *each* response.)

	Always	Usually	Sometimes	Never	Don't know	
181. Take a short course about how to deal with alcohol abuse.	1	2	3	4	5	(48)
182. Be counseled about their problems by Social Actions personnel.	1	2	3	4	5	(49)
183. Go TDY to one of the Air Force hospitals that treats alcoholics.	1	2	3	4	5	(50)
184. Be reviewed periodically by a group including their commander and Social Actions personnel for up to a year.	1	2	3	4	5	(51)

Suppose you supervise a person who has a drinking problem and this person has a grade of E-5 or higher (or is an officer). You have tried several times to get this person to cut down, but he keeps on drinking. In fact, his work is falling off because of drinking. Please indicate whether *you* would do each of the following.

If you have *actually done* one or more of the things listed below in the case of an E-5 or above (or an officer), please circle 1 for "Have done this."

		Have done this	Definitely would do this	Probably would do this	Not sure	Probably would not do this	Definitely would not do this	
185.	Tell my supervisor.	1	2	3	4	5	6	(52)
186.	Tell someone else in the Air Force who could help this person.	1	2	3	4	5	6	(53)
187.	Tell a civilian who could help this person.	1	2	3	4	5	6	(54)
188.	Encourage the person to enter the Air Force treatment program.	1	2	3	4	5	6	(55)
189.	Encourage the person to enter a civilian treatment program.	1	2	3	4	5	6	(56)
190.	Threaten disciplinary action if the person does not volunteer for treatment.	1	2	3	4	5	6	(57)
191.	Discuss the situation with the person and start to document his or her substandard performance.	1	2	3	4	5	6	(58)

192. (59) If someone I supervise had a drinking problem, I would not hesitate to refer them to Social Actions for treatment.

1 Strongly agree

2 Agree

3 Not sure

4 Disagree

5 Strongly disagree

193. (60) During the past 6 months, have you taken specific steps to prevent the abuse of alcohol among Air Force personnel?

1 Yes

2 No

194. If you circled 2 for "no," you are through. If you circled 1, describe what you did briefly.

_____

_____

_____

_____

Appendix B

SOCIAL ACTIONS UNITS, BY COMMAND AND BASE: FEBRUARY 1978

Command and Air Force Base	Base Military Population (1st Quarter 1977)	Number of Social Actions Units
Alaskan Air Command		3
Eielson	2,404	
Elmendorf	1,077	
Shemya	661	
USAF Academy	2,328	1
Air Defense Command		6
Duluth	1,171	
Hancock Field	987	
Keflavik	745	
Kingsley	329	
Peterson	1,844	
Tyndall	3,558	
United States Air Force, Europe		20
Alconbury	2,153	
Aviano	1,593	
Bentwaters	3,422	
Bitburg	3,323	
Hahn	3,120	
Hellenikon	1,135	
Incirlik	2,051	
Karamursel	826	
Lakenheath	3,765	
Lindsey	1,244	
Milenhall	1,934	
New Amsterdam	1,125	
Ramstein	5,957	
Sembach	2,182	
Spangdahlem	2,601	
Tempelhof	969	
Torrejon	4,017	
Upper Heyford	3,641	
Zaragoza	1,060	
Zweibrucken	28,956	

Air Training Command		12
Chaunte	3,057	
Columbus	1,875	
Keesler	5,783	
Lackland	6,722	
Langhlin	1,800	
Lowry	3,274	
Mather	3,805	
Randolph	4,795	
Reese	1,614	
Sheppard	3,855	
Vance	712	
Williams	2,164	
Air University	1,672	1
Logistics Command		6
Hill	4,063	
Kelly	1,504	
McClellan	2,901	
Robins	3,748	
Tinker	3,468	
Wright-Patterson	6,716	
Military Airlift Command		
Altus	3,890	
Andrews	6,346	
Bolling	1,564	
Charleston	4,162	
Dover	5,003	
Lajes	924	
Little Rock	6,247	
Kitland	3,478	
McChord	5,106	
McGuire	4,954	
Norton	5,424	
Pope	3,429	
Rhein-Main	2,716	
Richards-Gebaur	1,144	
Scott	4,866	
Travis	8,871	
United States Air Force, Pacific		6
Clark	8,182	
Hickam	5,001	
Kadena	8,335	
Kunsan	2,517	
Osan	3,615	
Yokota	3,969	

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Strategic Air Command

Anderson	3,542
Barksdale	5,766
Beale	4,205
Blytheville	2,560
Carswell	4,445
Castle	5,355
Dyess	4,774
Ellsworth	5,505
Fairchild	3,858
F.E. Warren	3,640
Grand Forks	5,030
Griffiss	3,726
K.I. Sawyer	3,506
Loring	3,405
Malmstrom	4,804
March	4,267
McConnell	3,710
Minot	5,381
Offutt	11,288
Pease	3,305
Plattsburgh	3,791
Rickenbacker	1,909
Vandenberg	4,546
Whiteman	3,019
Wurtsmith	2,731

7

Systems Command

Brooks	1,212
Edwards	3,480
Eglin	7,667
L.G. Hanscom	1,885
Los Angeles	1,596
Patrick	2,984
Sunnyvale	776

Tactical Air Command		
Bergstrom	4,560	
Cannon	3,925	
Davis-Monthan	5,705	
Eglin/Hurlburt	2,969	
England	2,900	
George	4,637	
Holloman	5,710	
Homestead	4,518	
Howard	1,399	
Langley	8,141	
Luke	5,485	
MacDill	5,281	
Moody	2,680	
Mountain Home	3,842	
Myrtle Beach	2,940	
Nellis	7,247	
Seymour-Johnson	4,886	
Shaw	5,629	
Security Services		6
Chicksands	1,301	
Ft. George G. Meade	57	
Goodfellow	1,245	
Iraklion	785	
Misawa	1,800	
San Vito	1,425	
Total	470,184	128

Appendix C

TIME SPENT ON DRUG/ALCOHOL TASKS

Task No. and Task[1]		Average Percent Time Spent by All Respondents
	ADMINISTRATION	
SUPERVISING		
A. 1	Assign additional duties to personnel	0.4
A. 2	Assign personnel to duty positions	0.2
A. 3	Clarify policies, directives, or procedures for assigned personnel	0.8
A. 4	Guide or counsel subordinates on personal, military, or work-related problems	0.5
A. 5	Initiate personnel action requests	0.2
A. 6	Initiate punitive actions	0.1
A. 7	Initiate recognition for commendable performance	0.3
A. 8	Maintain required records on personnel supervised	0.3
A. 9	Prepare civilian performance ratings or supervisory appraisals	0.1
A.10	Prepare job descriptions	0.1
A.11	Prepare or endorse officer effectiveness reports	---[2]
A.12	Prepare or endorse airman performance reports (APR)	0.3
A.13	Prepare work or leave schedules	0.2
A.14	Provide orientation to newly assigned personnel	0.4
A.15	Review or sign civilian performance ratings	0.1
A.16	Supervise civilian personnel	0.1
A.17	Supervise military personnel with AFSCs other than 734X0 assigned to social actions offices	0.1
A.18	Supervise Social Actions Officers, Equal Opportunity (AFSC 736XA)	---
A.19	Supervise Social Actions Officers, Drug and Alcohol (AFSC 736XB)	---
A.20	Supervise Social Actions Officers, Race Relations (AFSC 736XC)	---
A.21	Supervise Social Actions Specialists, Equal Opportunity (AFSC 73430A)	---
A.22	Supervise Social Actions Specialists, Drug and Alcohol (AFSC 73430B)	0.3

[1] Task Nos. refer to tasks listed in Job Inventory.
[2] Less than 0.1 percent.

A.23	Supervise Social Actions Specialists, Race Relations (AFSC 73430C)	---
A.24	Supervise Social Actions Superintendents (AFSC 73490)	---
A.25	Supervise Social Actions Technicians, Equal Opportunity (AFSC 73470A)	---
A.26	Supervise Social Actions Technicians, Drug and Alcohol (AFSC 73470B)	0.2
A.27	Supervise Social Actions Technicians, Race Relations (AFSC 73470C)	---
A.28	Supervise volunteer non-social actions personnel working with social actions programs	0.3

PLANNING AND MANAGING

B. 1	Attend staff, committee, or board meetings other than rehabilitation or drug and alcohol abuse committees (DAAC)	0.7
B. 2	Coordinate with or seek assistance from higher headquarters on management, operational, or functional problems	0.6
B. 3	Design or develop information charts, graphs, or status boards	0.7
B. 4	Determine requirements for personnel, material, or money	0.4
B. 5	Determine temporary duty (TDY) requirements or schedule personnel for travel to Geographically Separated Units (GSU)	0.2
B. 6	Develop or implement cost reduction programs	0.1
B. 7	Develop or revise organizational or functional structure	0.2
B. 8	Direct maintenance of administrative files other than case files	0.3
B. 9	Direct maintenance or utilization of equipment	0.2
B.10	Draft correspondence such as letters, messages, or memos	1.2
B.11	Draft, develop, or revise forms	0.6
B.12	Establish or revise personal or ethical standards of conduct for social actions personnel	0.2
B.13	Establish work priorities or performance standards	0.4
B.14	Perform analyses or summaries of data, trends, or statistics	0.6
B.15	Plan agenda for symposiums, conferences, or workshops other than for DAAC or rehabilitation committees	0.4
B.16	Plan layouts of facilities or workspace	0.2
B.17	Plan or develop pilot social actions programs	0.4
B.18	Plan or develop safety programs	0.1
B.19	Plan or develop security programs	0.1
B.20	Prepare briefings for other than required educational programs	0.7
B.21	Prepare, develop, or revise procedural guidelines such as operating instructions (OI), or checklists	0.5
B.22	Prepare financial reports or summaries such as	0.2

	budgets, financial plans, or estimates of expenditures	
B.23	Prepare, research, or edit problem-solving reports such as staff summaries or one-time reports on items of interest	0.4
B.24	Prepare, review, or edit inputs for recurring reports such as statistical, trends, status, or historical reports	0.6
B.25	Prepare, review, or edit plans or programs such as contingency, security, or safety	0.1
B.26	Revise or edit directives such as manuals, regulations, supplements, or other publications	0.3
B.27	Write, develop, or provide inputs to directives such as manuals, regulations, supplements, or other publications	0.3

EVALUATING

C. 2	Evaluate compliance of subordinates with performance standards	0.4
C. 7	Evaluate financial reports or summaries	0.1
C. 9	Evaluate individuals for promotion, demotion, or reclassification	0.1
C.10	Evaluate job descriptions	0.1
C.12	Evaluate qualifications of personnel for entry into 734X0 or 736X career ladders	0.4

PREVENTION/EDUCATION

STANDARDIZED SEMINARS

Handle Attendance at Standardized Seminars

E.42	Review organizational computer printouts to assign quotas for standardized seminars	0.3
E.16	Coordinate scheduling of personnel to attend standardized seminars with units and Consolidated Base Personnel Office (CBPO)	0.6
E.24	Maintain attendance records of seminar participants	0.8

Prepare for Standardized Seminars

E.43	Schedule or invite guest lecturers for drug or alcohol abuse lectures	0.3
E.28	Obtain flyers or pamphlets on drug or alcohol abuse	0.6
E.47	Write or develop standardized seminar lesson plans	0.3
E.35	Personalize standardized presentations for seminars	0.6
E.36	Prepare visual aids or support materials for standardized seminars	0.6
E.45	Travel to GSUs to conduct standardized seminars	0.2

Conduct Standardized Seminars

E.22	Introduce speakers or facilitate interaction between speakers and seminar participants	0.3
E.13	Conduct Substance Abuse Seminars	0.9
E. 2	Administer critique sheets to standardized seminar participants	0.8
E.11	Conduct Drug/Alcohol Seminars for Commanders/Supervisors/First Sergeants	1.0

Evaluate Standardized Seminars

E.17	Develop critique sheets to be used in standardized seminars	0.2
E.20	Evaluate critiques from standardized seminars	0.6
E.14	Contact personnel on base for feedback on standardized seminars	0.3
C. 3	Evaluate effectiveness of presentations for education programs	0.7

OTHER PREVENTION

Prepare for Education Activities

E.18	Develop drug or alcohol abuse portion of training literature for PME courses	0.1
E.30	Organize rap sessions on drug or alcohol abuse	0.3

Conduct Alcohol Abuse Seminars

E. 6	Conduct alcohol abuse conferences or symposiums	0.4
E. 7	Conduct alcohol abuse seminars other than standardized seminars	0.4

Conduct Drug Abuse Seminars

E. 9	Conduct drug abuse conferences or symposiums	0.2
E.10	Conduct drug abuse seminars other than standardized seminars	0.3

Conduct Other Substance Abuse Education

E. 4	Brief personnel at newcomers' orientation regarding drug or alcohol abuse	0.7
E. 3	Brief personnel at commanders' calls regarding drug or alcohol abuse	0.5
E. 5	Conduct drug or alcohol abuse portion of Professional Military Education (PME) such as NCO leadership course	0.3
E.12	Conduct specialized training on communications or personal growth	0.4
E.21	Guide rap sessions on drug or alcohol abuse	0.5
E.27	Moderate panel discussions	0.1

Provide Other Communications about Alcohol Abuse

E.31	Participate in alcohol abuse conferences or symposiums	0.7
E.37	Provide current alcohol information to commanders for use in commanders' calls	0.5
E.15	Coordinate alcohol awareness campaign with base staff agencies	0.6

Provide Other Communications about Drug Abuse

E.33	Participate in drug abuse conferences or symposiums	0.5

Provide Other Communications on Substance Abuse

E.19	Distribute flyers or pamphlets on drug or alcohol abuse	0.8
E.26	Make radio or TV appearances regarding drug or alcohol abuse	0.1
G.42	Write newspaper articles on drug or alcohol abuse	0.5
E.32	Participate in discussions on drug or alcohol abuse matters at base councils other than DAAC	0.3
E.38	Provide information on drug or alcohol abuse to active duty personnel	1.1
E.39	Provide information on drug or alcohol abuse to DAF civilians	0.7
E.40	Provide information on drug or alcohol abuse to military dependents	0.7

E.41	Provide information on drug or alcohol abuse to retired military personnel	0.3
.46	Write flyers or pamphlets on drug or alcohol abuse	0.2
E.29	Orient non-duty personnel such as the hospitalized or incarcerated to drug or alcohol abuse programs	0.2

IDENTIFICATION OF SUBSTANCE ABUSERS

G. 8	Coordinate with off-base law enforcement agencies on drug or alcohol abuse matters	0.3
G. 9	Coordinate with Security Police or Office of Special Investigation (OSI) on drug or alcohol abuse matters	0.7
F.25	Maintain suspenses on entry of personnel in drug or alcohol rehabilitation matters	0.8
F. 1	Advise commanders or first sergeants on specific drug or alcohol cases	1.2

TREATMENT

AWARENESS SEMINARS

E. 8	Conduct Alcohol Awareness Seminars	0.9
F. 8	Counsel concerned drinkers not formally identified as alcohol abusers	0.7

LOCAL REHABILITATION

Maintain Records on Rehabilitees (all in this section prorated to drug or alcohol)

F.28	Notify CBPO special actions unit of personnel entered into rehabilitation programs	0.9
F. 4	Compare advanced personnel data system rosters to case file data	0.8

Treat Substance Abusers (all in this section prorated to drug or alcohol)

F.19	Develop rehabilitation regimens	1.0
F.20	Document drug or alcohol counseling sessions	1.4
F.29	Orient rehabilitees newly assigned to base	0.6
F.31	Perform crisis intervention counseling for rehabilitation program members	0.5
F.37	Write summary of rehabilitation treatment for clients going TDY	0.6
F.21	Evaluate each unit's treatment of drug or alcohol rehabilitees	0.5
C. 4	Evaluate effectiveness of individual counseling techniques	0.8
C. 5	Evaluate effectiveness of group counseling techniques	0.8
C. 6	Evaluate effectiveness of rehabilitation programs	0.8

Treat Alcohol Rehabilitees

F. 6	Conduct intake interviews for personnel entering alcohol rehabilitation programs	1.2
F.14	Counsel rehabilitees in alcohol programs in group sessions	1.1
F.13	Counsel rehabilitees in alcohol programs in individual sessions	1.1
F.22	Evaluate progress of alcohol rehabilitees	1.2
F.11	Counsel parents or dependents of alcohol abusers	0.5
F.17	Counsel supervisors of alcohol abusers	0.8
E.23	Maintain alcohol abuse case files	1.2
F.26	Make alcohol abuse referrals to other agencies	0.1

Work with Alcohol Treatment Centers

F. 5	Communicate with alcohol treatment centers concerning treatment or progress of clients	0.6

F. 2	Arrange for transportation of personnel to and from alcohol treatment centers	0.2

Identify Drug Abusers (Included with treatment)

F. 9	Counsel personnel on aspects of limited privilege communications program (LPCP)	0.8
F. 3	Collect urine samples	---
F.24	Inform drug testing monitors of individuals required to submit urine samples	0.6

Treat drug rehabilitees

F. 7	Conduct intake interviews for personnel entering drug rehabilitation programs	1.1
F.15	Counsel rehabilitees in drug programs in group sessions	0.9
F.16	Counsel rehabilitees in drug programs in individual sessions	1.0
F.23	Evaluate progress of drug rehabilitees	1.1
F.12	Counsel parents or dependents of drug abusers	0.4
F.18	Counsel supervisors of drug abusers	0.7
E.25	Maintain drug abuse case files	1.2
F.27	Make drug abuse referrals to other agencies	0.5

Work with Rehabilitation Committees (all in this section prorated to drug or alcohol)

F.35	Schedule squadron commanders, reporting officials, or physicians for rehabilitation committee meetings	0.8
F.36	Serve as a member of rehabilitation committees	1.1
F.34	Record minutes of rehabilitation committees	0.6

SUPPORT

TRAINING

D. 1	Administer or score tests	0.1
D. 2	Assign on-the-job training (OJT) trainers	0.1
D. 3	Assign technical training course instructors	---
D. 4	Conduct OJT	0.2
D. 5	Conduct remedial training	0.1
D. 6	Counsel trainees on training progress	0.2
D. 7	Demonstrate how to locate technical information	0.1
D. 8	Determine or evaluate training requirements	0.2
D. 9	Develop, assemble, or construct training aids	0.3
D.10	Develop career development courses (CDC)	---
D.11	Develop specialty training standards (STS)	---
D.12	Develop tests	0.1
D.13	Direct or implement OJT	0.1
D.14	Evaluate progress of trainees	0.3
D.15	Evaluate training materials	0.2
D.16	Evaluate training programs, methods, or techniques	0.3
D.17	Lead performance or discussion groups for OJT or technical training	0.1
D.18	Maintain training or instructor records, such as Consolidated Training Record (AF Form 623)	0.2
D.19	Maintain files or libraries of study reference materials	0.2
D.20	Nominate or select individuals to receive training or to attend courses	0.2
D.21	Plan training programs	0.1
D.22	Present lectures or demonstrations for OJT or technical training	0.1
D.23	Procure training aids, space, or equipment for OJT or technical training	0.1
D.24	Research, write, or develop lesson plans or support materials such as study guides for technical training	0.2
D.25	Schedule training sessions	0.2
D.26	Serve as training advisor or training program monitor	0.1
D.27	Write or review training reports	0.1
C. 8	Evaluate effectiveness of training for graduates of USAF technical training courses	0.1

INSPECT AND EVALUATE

C. 1	Evaluate alert, emergency, or contingency procedures	0.1
C.11	Evaluate or monitor safety or security programs	0.1
C.13	Evaluate suggestions	0.3
C.14	Inspect appearance of personnel	0.4
C.15	Inspect facilities or work areas for condition or appearance	0.5
C.16	Inspect or evaluate records, administrative files, or accounting procedures other than case files	0.3

C.17	Investigate incidents or accidents	0.2
C.18	Perform official inspections or staff assistance visits	0.4
C.19	Perform safety or security inspections	0.2
C.20	Prepare replies or action items in response to inspection reports	0.4
C.21	Review or evaluate inspection reports	0.4
C.22	Write inspection reports	0.3

TREAT PROBLEMS OTHER THAN SUBSTANCE ABUSE

F.32	Perform crisis intervention counseling for walk-in clients	0.6
F.30	Perform crisis intervention counseling by telephone for persons not in rehabilitation programs	0.4
F.10	Counsel personnel on problems other than drug or alcohol related problems	0.8
F.33	Refer personnel with problems other than drug or alcohol related to other agencies	0.6

BECOME INFORMED

E.34	Participate in specialized training on communications or personal growth	0.5
G.27	Obtain information on locally available drugs	0.6
G.34	Research literature for drug or alcohol information	0.7
G. 1	Attend courses on drug or alcohol abuse, psychology, or related subjects during duty hours	0.5
G. 2	Attend social functions on base to evaluate social climate in drug or alcohol matters	0.4

MAINTAIN COMMUNITY RELATIONS

E. 1	Address local groups or organizations such as schools regarding drug or alcohol abuse	0.9

MAINTAIN RELATIONS WITH ALCOHOL REFERRAL AGENCIES

G.33	Publish or distribute listings of alcohol referral agencies	0.3
G. 7	Coordinate establishment of Alcoholics Anonymous, Alateen, or Alanon on base	0.3
G.15	Establish or maintain liaison with consultants from organizations such as Alcoholics Anonymous or Alateen	0.7
E.44	Train personnel of local substance abuse control agencies on alcohol or drug abuse	0.2

MAINTAIN RELATIONS WITH DRUG OR ALCOHOL REFERRAL AGENCIES

G.25	Maintain listings of drug or alcohol referral agencies	0.7
G.13	Develop or maintain contacts for drug or alcohol referral agencies	0.6

ASSURE COMPLIANCE WITH POLICY

G.12	Develop drug or alcohol abuse portion of affirmative action plans	0.1
G.17	Evaluate drug or alcohol abuse data submitted by staff agencies for compliance with affirmative action plans	0.1
G.18	Evaluate drug or alcohol information or publicity for compliance with Air Force policy	0.4

WORK WITH DAACs

G. 6	Coordinate or motivate actions of staff agencies participating in DAAC	0.5
G.37	Schedule DAAC meetings	0.4
G.31	Prepare agenda for DAAC meetings	0.5
G.35	Record, prepare, or publish minutes of DAAC meetings	0.4
G.28	Participate in drug abuse control committees	0.7

OPERATE HOTLINES

G.14	Establish hotlines or telephone counseling services	0.2

USE VOLUNTEERS

G.10	Develop alcohol abuse control programs utilizing volunteer resources	0.4
G.11	Develop drug abuse control programs utilizing volunteer resources	0.3
G.39	Select or train volunteers for hotlines or telephone counseling services	0.1
G.38	Select or train volunteers for use in administrative procedures or education functions	0.2

HANDLE GENERAL DATA

G.23	Maintain administrative files other than case files	0.3
G.26	Maintain publication files	0.2
G.41	Update or maintain information charts, or visual aids such as organizational charts or status boards	0.4
G.36	Respond to major air command requests for drug or alcohol abuse data	0.7

BRIEF ON DRUG/ALCOHOL PROGRAMS

G. 3	Brief commanders or staff agencies on drug or alcohol abuse programs	0.7
G. 4	Brief visitors or very important persons (VIPs) on drug or alcohol abuse programs	0.3

MAINTAIN LIAISON WITH AF AGENCIES

G.24	Maintain liaison with other social actions offices on drug or alcohol abuse matters	0.6
G.16	Establish or maintain liaison with staff agencies on drug or alcohol abuse matters	0.7

GENERAL

G.40	Testify at administrative board hearings or courts-martial	0.2
G.30	Plan drug or alcohol abuse portion of social actions budget	0.3
G.19	Implement cost reducton programs	0.1
G.22	Inventory supplies or equipment	0.2
G.32	Prepare requisitions for supplies or equipment	0.3
G.20	Implement safety programs or procedures	0.1
G.21	Implement security programs or procedures	0.1
G. 5	Clean work area	0.9
G.29	Perform additional duties	0.9

Appendix D

BASE-LEVEL ANALYSES

This alternative analysis of the materials covered in Chapter 5 differs from the earlier one in two major respects. First, the ANOVA designs include base of assignment as a between-subjects variable. This procedure enables systematic evaluation of possible differences in seminar effects across bases by generating a seminar-control by base interaction test. Moreover, it removes possible base effects from the error term used to test seminar-control main effects, thereby increasing the sensitivity of these tests. Second, for clarity of presentation, the results shown in Chapter 5 focused primarily on individual behavior, attitude, and knowledge items. Where possible in this analysis, these items have been combined into overall scales to increase the sensitivity of the assessments.

This appendix follows the organization used in Chapter 5. Although the analyses are more complex than those presented earlier, the results are similar.

RESPONSIBLE USE OF ALCOHOL

Behavior

Six behavioral indices of responsible alcohol use were given in Table 5.5. These included the overall problem rate, number of dependence symptoms, days of work lost, daily alcohol consumption, number of intoxication incidents, and number of days of driving an automobile while intoxicated reported by respondents. These measures were analyzed in a mixed ANOVA design, in which seminar attendance was a between-subjects factor and survey administration was a within-subjects factor. With the exception of the overall problem rate, the ANOVAs were performed on the transformed variable equal to the natural logarithm of 1 + X, because some individuals reported very high scores on the measures.

The six measures were reanalyzed with base of assignment included as a between-subjects factor. Table D.1 shows two of the ANOVA tests for each measure: (1) the seminar-control group by initial-follow-up survey administration test for significant seminar effects; and (2) the group by administration by base of assignment test for interactive (i.e., different) seminar effects across bases. The results of these tests are consistent with those given earlier. They provide little evidence of seminar effects on responsible alcohol-related behavior. Only 1 of the 12 tests reached significance: the group by administration by base test for days of work lost. Moreover, closer examination of this interaction indicates that there was a significant difference in days of work lost between the seminar and control groups at only one base, and that, in this instance, the number of days lost by the seminar group *increased* following the seminar while it decreased for the control group.

Table D.1

BEHAVIORAL MEASURES OF RESPONSIBLE ALCOHOL USE

Behavior	Source[a]	F-Ratio
Overall problem rate	Group x administration	0.8
	Group x administration x base	1.1
Dependence symptoms	Group x administration	0.1
	Group x administration x base	0.6
Days of work lost	Group x administration	0.3
	Group x administration x base	2.7[b]
Daily alcohol consumption	Group x administration	0.1
	Group x administration x base	1.0
Intoxication incidents	Group x administration	0.5
	Group x administration x base	0.3
Days drove while intoxicated	Group x administration	0.2
	Group x administration x base	0.6

[a]The group x administration term has 1 degree of freedom; the group x administration x base term has 10 degrees of freedom. The minimum degrees of freedom in the error term for the six measures is 884.

[b]The F-ratio is significant at $p < .005$.

Attitudes

The attitude items shown in Table 5.6 were combined into two overall scales assessing (1) the maximum number of drinks that nonabstaining respondents said they would drink at a party on the day before a duty day or just before driving an automobile (follow-up questions 88 and 89); and (2) the desirability of alcohol use (questions 32, 37, 41, 42, and 45). The mean response on each scale was then compared for the seminar and control groups at each survey administration in an ANOVA design that included base of assignment as a between-subjects factor. In the case of the desirability measure, the polarity of question 45 was reversed to make it consistent with the other four questions before the mean five-point response was computed for the overall scale. The ANOVA results for the two scales are summarized in Table D.2.

The data in Table D.2 are generally consistent with those in Table 5.6, and provide little evidence of persisting seminar effects. The F-tests for the maximum drinks scale show significant seminar and seminar by base effects in the initial survey administration ($p < .05$ in both cases). These differences reflect significant seminar versus control group differences in the desired direction at 2 of the 13 installations. At follow-up, however, the seminar and seminar

Table D.2

ATTITUDINAL MEASURES OF RESPONSIBLE ALCOHOL USE

Attitude	Administration	Source[a]	F-Ratio
Maximum drinks would consume at a party	Initial	Group	4.8[b]
		Group x base	1.9[b]
	Follow-up	Group	0.2
		Group x base	0.6
Desirability of alcohol use	Initial	Group	0.9
		Group x base	0.5
	Follow-up	Group	0.1
		Group x base	0.6

[a]The group term has 1 degree of freedom. The group x base term has 12 degrees of freedom for the initial survey administration and 10 degrees of freedom at follow-up. The minimum degrees of freedom for the error term is 1202 for the initial administration and 849 at follow-up.

[b]The F-ratio is significant at $p < .05$.

by base tests are not significant. Moreover, the five-point desirability scale did not yield significant seminar or seminar by base effects for either survey administration.

Knowledge

The key alcohol-knowledge items covered in the seminar manuals are paraphrased in Table D.3. In the upper panel of the table, the percentages of the seminar and control groups answering each item correctly are compared for the initial and follow-up survey administrations, using a one-way ANOVA design for unequal n's. In the lower panel, the mean percentage of correct answers for the four items combined is compared for the two groups, using an expanded ANOVA design that includes base as a between-subjects factor.[1] Among the individual items, only one—question 49—shows a significant seminar-control difference for the initial survey administration ($p < .05$). There were no significant differences at follow-up. For the overall scale, neither the seminar-control nor the seminar-control by base F-ratio was significant at either administration. In short, the data provide little evidence of persisting seminar effects on alcohol-related knowledge.

AIR FORCE POLICIES AND PROGRAMS

Although this section follows the same organization as Chapter 5, the analyses pertaining exclusively to supervisors have been omitted because the numbers of respondents performing supervisory duties at each base were quite small.

[1]Missing responses were coded as incorrect answers on the overall scale, provided the respondent did answer at least one of the four questions.

Table D.3

KNOWLEDGE ABOUT ALCOHOL

(Percent Correct)

Statement	Question Number	Survey Administration[a]	Survey Group: Seminar Group	Survey Group: Control Group
Alcohol is a drug	49	Initial[b]	96.3	93.3
		Follow-up	94.7	95.3
Drinking too much too fast can kill	51	Initial	82.8	82.0
		Follow-up	88.0	87.6
Alcohol can damage the brain	57	Initial	94.2	93.2
		Follow-up	96.4	95.7
Alcohol can be addictive	69	Initial	90.8	90.4
		Follow-up	90.8	92.1
Overall scale[c]		Initial	90.7	89.5
		Follow-up	92.5	92.5

[a]The minimum n's for the individual items for the seminar and control groups are 638 and 695 for the initial administration and 468 and 507 at follow-up, respectively.

[b]The seminar-control difference is significant at $p < .05$ by one-way ANOVA for unequal n's.

[c]The overall scale was tested by ANOVA with base included as a between-subjects factor. The F-ratios computed for the survey group and survey group by base terms were $F(1,1316) = 1.5$ and $F(12,1316) = 1.2$ for the initial administration and $F(1,929) = 0.1$ and $F(10,929) = 0.9$ at follow-up, respectively.

Behavior

The surveys assessed whether respondents had taken any of several actions for their own drinking problems and for the problems of co-workers. The rates of taking these actions were compared for the seminar and control groups by using a mixed ANOVA design in which seminar attendance and base of assignment were between-subjects factors and survey administration was the repeated measure.

Table D.4 summarizes the results of two of the ANOVA tests performed for each action. In the upper panel, the F-ratios obtained for the group by administration and the group by administration by base terms are shown for three measures indicating, respectively, that the respondent (1) tried to control his own drinking; (2) volunteered for the Air Force alcohol treatment program; or (3) sought help from at least one of several sources for his problem.

including the Air Force program, a civilian treatment program, his supervisor, someone else in the Air Force, or someone outside the Air Force (follow-up survey questions 147 through 151). The ANOVA results concerning actions taken for co-workers' problems are summarized in the lower panel. The two measures shown involve (1) encouraging the co-worker to enter the Air Force alcohol treatment program; and (2) taking at least one of several actions, including encouraging the co-worker to enter the Air Force program, encouraging him to enter a civilian treatment program, discussing the problem with one's supervisor, discussing the problem with someone else in the Air Force, or discussing the problem with someone outside the Air Force (follow-up survey questions 152 through 156).

Table D.4

ACTIONS TAKEN FOR ALCOHOL PROBLEMS

Person with Problem	Action Taken	Source[a]	F-Ratio
Respondent	Tried to control drinking	Group x administration	0.6
		Group x administration x base	1.0
	Volunteered for AF program	Group x administration	0.0
		Group x administration x base	1.1
	Sought help	Group x administration	3.2
		Group x administration x base	2.0[b]
Co-worker	Encouraged person to enter AF program	Group x administration	0.1
		Group x administration x base	1.7
	Sought help or encouraged person to seek treatment	Group x administration	0.5
		Group x administration x base	1.1

[a]The group x administration term has 1 degree of freedom; the group x administration x base term has 10 degrees of freedom. The minimum degrees of freedom in the error term for the five measures is 814.

[b]The F-ratio is significant at $p < .05$.

Consistent with the results discussed in Chapter 5, the data in Table D.4 provide little evidence of seminar impact on help-seeking behavior. Only one of the ten F-tests reached statistical significance. Moreover, further examination indicates that this effect—the group by administration by base interaction for "sought help" for one's own problem—is primarily attributable to test-retest reliability problems among the very small number of persons at each base who reported seeking help for alcohol problems. (Few had problems to begin with.) In no instance was there a significant increase in help-seeking by attendees (relative to the control group) following the seminar.

Attitudes

As discussed earlier, *attitudes* toward seeking help in the event one experienced alcohol problems were also assessed, using a five-point scale ranging from "definitely would" to "definitely would not."[2] The upper panel of Table D.5 summarizes the base-level ANOVA results for the *attitudinal* forms of the behaviors shown in the upper panel of the preceding table. The ANOVAs were performed on the mean five-point rating for each measure. In the lower panel of Table D.5, the attitudes shown individually in Table 5.11 have been combined into an overall favorability index concerning Air Force alcohol policies programs. The table summarizes the ANOVA results for this overall measure, based on the mean rating made for the five component items. Each item was rated on a five-point favorability scale ranging from "strongly agree" to "strongly disagree," and the polarity of questions 36 and 46 was reversed for consistency with questions 30, 39, and 48.

The results in Table D.5 are generally consistent with those shown earlier in Tables 5.10 and 5.11, and provide little evidence of persisting seminar impact on attitudes. In the upper panel of the table, the group and group by base effects for the overall help-seeking measure did reach significance for the initial administration, reflecting significant seminar-control group attitude differences in the desired direction at 2 of the 13 bases. However, the F-tests were not significant at follow-up. In the lower panel, the initial group and group by base tests show significant seminar versus control group differences, but, as was the case in Table 5.11, these differences reflect less favorability toward Air Force policies among seminar attendees than among control subjects. In any event, these effects did not persist at follow-up.

Knowledge

Finally, the knowledge items shown in Table 5.12 were combined into an overall measure concerning knowledge of Air Force policies on alcohol abuse. The mean percentage of correctly answered items was then compared for the seminar and control groups in an ANOVA design that included base of assignment as a between-subjects factor.[3] These results are summarized in Table D.6.

Consistent with the earlier analysis, the data in Table D.6 suggest that the seminars had only a small impact, at best, in promoting knowledge of Air Force policies on alcohol abuse. The significant group by base interaction in the initial administration reflects the fact that at some bases knowledge was greater among attendees, while at others it was greater among control subjects. Indeed, the mean scores on the index for seminar and control subjects were identical in the initial administration, and at the one base showing a significant group effect, knowledge was greater among persons in the control group than among seminar attendees. At follow-up, the seminar versus control group main effect *was* significant. However, further analysis shows that the effect was not strong enough to reach significance at any individual base, and, moreover, the data in Table 5.12 clearly show that the effect stems from a difference on only one of the four component items (question 67).

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[2]As discussed in Chapter 5, the scale included an additional category of "have done this," which was coded as "definitely would" in this analysis.

[3]Missing responses were coded as incorrect answers on the overall scale, provided the respondent did answer at least one of the four questions.

Table D.5

ATTITUDES TOWARD AIR FORCE ALCOHOL POLICIES AND PROGRAMS

Measure	Administration	Source[a]	F-Ratio
Actions for Own Problem			
Would try to control own drinking	Initial	Group	0.4
		Group x base	0.8
	Follow-up	Group	1.4
		Group x base	0.7
Would volunteer for AF program	Initial	Group	1.7
		Group x base	1.2
	Follow-up	Group	2.4
		Group x base	0.6
Would seek help	Initial	Group	4.7[b]
		Group x base	1.9[b]
	Follow-up	Group	2.8
		Group x base	1.2
Air Force Policy			
Favorability toward Air Force alcohol policies/programs	Initial	Group	4.5[b]
		Group x base	2.4[c]
	Follow-up	Group	0.1
		Group x base	0.4

[a]The group term has 1 degree of freedom. The group x base term has 12 degrees of freedom for the initial survey administration and 10 degrees of freedom at follow-up. The minimum degrees of freedom for the error term is 1209 for the initial administration and 854 at follow-up.

[b]The F-ratio is significant at $p < .05$.

[c]The F-ratio is significant at $p < .01$.

Table D.6

Overall Knowledge of Air Force Policies on Alcohol Abuse

Administration	Source[a]	F-Ratio
Initial	Group	0.0
	Group x base	2.0[b]
Follow-up	Group	4.5[b]
	Group x base	0.8

[a]The group term has 1 degree of freedom. The group x base term has 12 degrees of freedom for the initial survey administration and 10 degrees of freedom at follow-up. The degrees of freedom for the error term are 1317 for the initial administration and 928 at follow-up.

[b]The F-ratio is significant at $p < .05$.

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